



DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE
BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: Dzung Nghia Nguyen

LOCATION OF PROPOSAL: 652 W Lake Sammamish Pkwy

DESCRIPTION OF PROPOSAL: Threshold determination to stabilize a steep slope critical area that was damaged by a land/mud slide.

FILE NUMBERS: 19-119857-LO **PLANNER:** Peter Rosen

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

- ☐ There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on _____.
- ☒ This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on **3/12/2020**
- ☐ This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on _____. This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5:00 p.m. on _____.

This DNS may be withdrawn at any time if the proposal is modified so as to have significant adverse environmental impacts; if there is significant new information indicating a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project); or if the DNS was procured by misrepresentation or lack of material disclosure.

Sara M. Bauer for

Environmental Coordinator

Elizabeth Stead, Land Use Director

2/27/2020

Date

OTHERS TO RECEIVE THIS DOCUMENT:

- ☒ State Department of Fish and Wildlife / Stewart.Reinbold@dfw.gov; Christa.Heller@dfw.wa.gov;
- ☒ Army Corps of Engineers Susan.M.Powell@nws02.usace.army.mil
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**City of Bellevue
Development Services Department
Land Use Staff Report**

Proposal Name: **Nguyen**

Proposal Address: 652 W Lake Sammamish Pkwy

Proposal Description: The applicant requests approval of a Critical Areas Land Use Permit to stabilize a steep slope critical area that was damaged by a land/mud slide.

File Number: **19-119857-LO**

Applicant: Dzung Nghia Nguyen

Decisions Included: Critical Areas Land Use Permit
(Process II. LUC 20.30P)

Planner: Peter Rosen, Senior Environmental Planner

**State Environmental Policy
Act Threshold
Determination:** **Determination of Nonsignificance**

Elizabeth Stead, Environmental Coordinator
Development Services Department

Director's Decision: **Approval with Conditions**
Michael A. Brennan, Director
Development Services Department

Elizabeth Stead, Land Use Director
Development Services Department

Application Date:	July 29, 2019
Notice of Application Publication Date:	August 15, 2019
Decision Publication Date:	February 27, 2020
Project Appeal Deadline:	March 12, 2020

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

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Attachments

1. Nguyen Residence Slope Stabilization Civil Plans – Attached
2. Geotechnical Reports – In File

A Critical Areas Land Use Permit is required per LUC 20.25H.015.B because the proposal involves modifications to a steep slope critical area. A Critical Areas Report is not required because the slope stabilization measures are an allowed use within steep slope/landslide hazard critical areas, provided the proposal meets applicable performance standards (LUC 20.25H.055).

II. Site Description, Zoning, Land Use and Critical Areas

A. Site Description

The project site is located at 652 W Lake Sammamish Pkwy NE in the Northeast Bellevue subarea. The parcel is adjacent to W Lake Sammamish Pkwy NE and does not have shoreline frontage on Lake Sammamish. The site slopes down to and is located above a private road, Lake Sammamish Lane NE, which provides access to several other residences

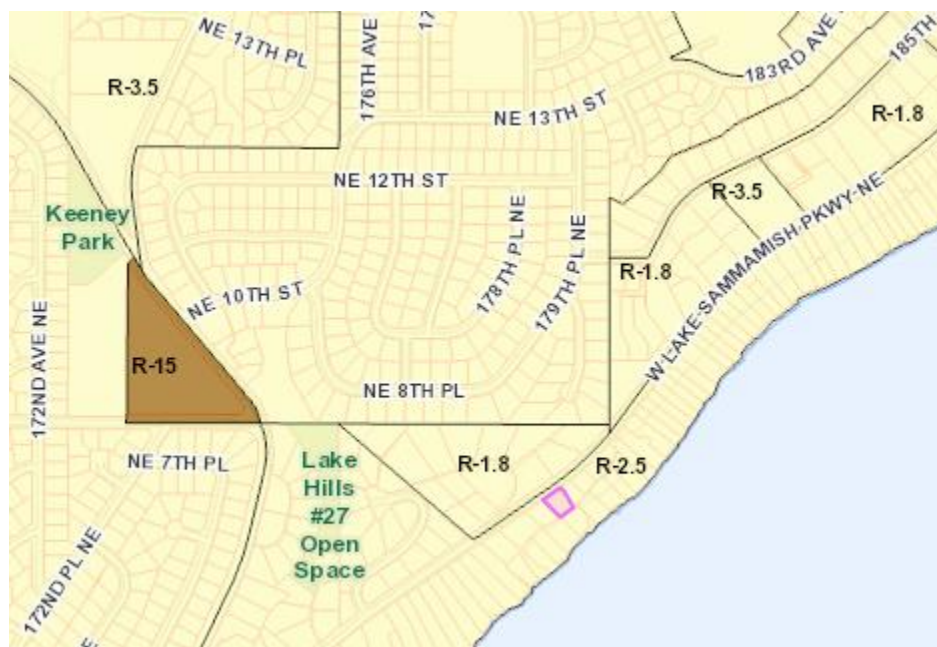
The site area is 11,761 SF and is currently developed with a single family residence (building footprint 1,190 SF), which is located above the steep slope and landslide area, and adjacent to W Lake Sammamish Pkwy NE.

The site contains several conifer trees at the base of the slope and there are several other trees scattered on the site and a shrub and grasses understory. The proposal would not remove existing trees on the site.

B. Zoning

The property is zoned R-2.5, a single-family residential zoning district, and is located in the Northeast Bellevue subarea. The immediate area is zoned R-2.5, with R-5 and R -1.8 zoning across W Lake Sammamish Pkwy to the north and east of the site,

Figure 2 – Zoning Map



C. Land Use and Site Context

The Comprehensive Plan land use designation for this site and the surrounding area is Single-Family Medium Density (SF-M). The proposal for a single family residence is consistent with the comprehensive plan designation.

The immediate vicinity of the site is developed with single-family residences.



D. Critical Areas Functions and Values

i. Geologic Hazard Areas

LUC 20.25H.120.A.2 defines steep slope areas as those areas that contain slopes of greater than 40%, have a rise of at least 10 feet, and exceed 1,000 SF in area. Regulated steep slopes are protected by a 50-foot top-of-slope buffer and a 75-foot toe-of-slope structure setback (LUC 20.25H.120.B.1 and C.2).

The applicant has worked with a licensed surveyor and submitted a topographical site survey showing steep slope areas. The applicant has provided a geotechnical report prepared by a licensed geotechnical engineer.

Geologic hazards pose a threat to the health and safety of citizens when commercial, residential, or industrial development is inappropriately sited in areas of significant hazard. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices. When technology cannot reduce risks to acceptable levels, building in geologically hazardous areas is best avoided (WAC 365-190).

Steep slopes may serve several other functions and possess other values for the City and its residents. Several of Bellevue's remaining large blocks of forest are located in steep slope areas, providing habitat for a variety of wildlife species and important linkages between habitat areas in the City. These steep slope areas also act as conduits for groundwater, which drains from hillsides to provides a water source for the City's wetlands and stream systems. Vegetated steep slopes also provide a visual amenity in the City, providing a "green" backdrop for urbanized areas enhancing property values and buffering urban development.

III. Consistency with Land Use Code Requirements:

A. Zoning District Dimensional Requirements:

The site is located in the R-2.5 zoning district. The proposal is to stabilize the steep slope area on the site, no expansion or modification to the existing residence is proposed.

B. Critical Areas Requirements LUC 20.25H:

The City of Bellevue Land Use Code Critical Areas Overlay District (LUC 20.25H) establishes performance standards and procedures that apply to development on any site which contains in whole or in part any portion designated as critical area, critical area buffer or structure setback from a critical area or buffer. The following sections of the Land Use Code apply to the proposal.

i. Consistency with LUC 20.25H.055.C.3.M - Performance standards for Specific Uses or Development – Stabilization Measures

- m. Stabilization Measures. Proposed stabilization measures within a critical area or critical area buffer to protect against streambank erosion or steep slopes or landslide hazards may be approved in accordance with this subsection. The performance standards of this part do not apply to shoreline stabilization measures in flood hazard critical areas when developed in accordance with LUC 20.25E.080.F.*

Finding: The proposed stabilization measures are an allowed use within steep slope/ landslide hazard critical areas, where necessary to protect existing primary structures and infrastructure and where avoidance measures are not technically feasible. The proposed slope stabilization is in response to a recent landslide and is necessary to protect the existing residence and infrastructure. The stabilization measures include a shotcrete and soil nail wall along the upper headscarp and a rock buttress at the toe of the recent landslide. Without the stabilization measures, the current landslide hazards pose an active threat to existing infrastructure on the site and to downgradient properties and infrastructure.

ii. Consistency with LUC 20.25H.125 - Performance standards - Landslide hazards and steep slopes.

In addition to generally applicable performance standards set forth in LUC 20.25H.055 and 20.25H.065, development within a landslide hazard or steep slope critical area or the critical area buffers of such hazards shall incorporate the following additional performance

standards in design of the development, as applicable. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function.

A. Structures and improvements shall minimize alterations to the natural contour of the slope, and foundations shall be tiered where possible to conform to existing topography;

Finding: The project is intended to stabilize modified topography created by a recent landslide. Planned structures include a shotcrete and soil nail wall along the upper headscarp, which will require minimal alterations to the natural contours of the slope and prevent uphill infrastructure from catastrophically failing. Additionally, the toe of the recent landslide would be stabilized with rock buttresses, which would consist of removal of limited amounts of landslide debris and replacement with a more competent, engineered system in critical portions of the unstable area. Although minor grading will be completed to aid in the restoration of the slopes with long-term erosion control measures, the natural contours of the slope would be preserved to the fullest extent possible.

B. Structures and improvements shall be located to preserve the most critical portion of the site and its natural landforms and vegetation;

Finding: Planned stabilization measures are intended to preserve the steep slope critical area on the site. The proposed shotcrete and soil-nail wall would stabilize the main headscarp of the landslide and the toe of the slope stabilized by rock buttresses. Revegetation of the existing steep slope area is proposed to restore natural, deep-rooting vegetation to the slopes affected by landslide activity.

C. The proposed development shall not result in greater risk or a need for increased buffers on neighboring properties;

Finding: The proposed stabilization measures and recommendations in the geotechnical reports are intended to stabilize the landslide area and prevent adverse impacts to neighboring properties. Without the proposed stabilization measures, the risk associated with landslide activity would be much higher than prior to the recent failure event. The proposed stabilization measures would mitigate risks to up-and down-gradient infrastructure. The proposal would not result in a greater risk or need for increased buffers on neighboring properties.

The proposed slope stabilization measures are within the applicant's property boundaries. The proposal does not include measures to rectify or repair the previous landslide damage on adjacent properties. Comments were received from the adjacent property owner located to the west of the subject site, concerned that the proposal does not address remedying the damage on his property from the previous landslide. The applicant's geotechnical consultant responded that a site-specific geotechnical evaluation would be necessary to address repair of the previous landslide damage and landslide hazard on adjacent property.

The load or lateral support for the proposed shotcrete wall would not rely on the adjacent property. The shotcrete wall would draw lateral support from the soil anchors installed beneath Nguyen's house and vertical support from the pin piles installed beneath the shotcrete wall. Therefore, the loads from these supporting elements would not have influence on the slope on the adjacent property. The planned stabilization measures are specifically intended to stabilize the headscarp of the landslide and the toe of slope stabilized by the rock buttresses.

The Land Use Code requires applicants to record a hold harmless agreement for any approvals to modify steep slopes and buffers. A hold harmless agreement is required to be recorded prior to building permit issuance. **See Conditions of Approval for Hold Harmless Agreement in Section IX of this report.**

D. The use of retaining walls that allow the maintenance of existing natural slope area is preferred over graded artificial slopes where graded slopes would result in increased disturbance as compared to use of retaining wall;

Finding: A shotcrete and soil nail retaining wall is proposed to stabilize the existing landslide headscarp in lieu of grading the slopes and to prevent overloading the sensitive landslide hazard area.

E. Development shall be designed to minimize impervious surfaces within the critical area and critical area buffer;

Finding: The proposal is for slope stabilization and the only new, additional impervious surface area would be the shotcrete/soil nail retaining wall. Impervious surfaces have been minimized to the fullest possible. The long-term erosion control methods will allow the slope to retain the natural hydrological patterns from pre-failure conditions.

F. Where change in grade outside the building footprint is necessary, the site retention system should be stepped and regrading should be designed to minimize topographic modification. On slopes in excess of 40 percent, grading for yard area may be disallowed where inconsistent with this criteria;

Finding: The proposed grading is for stabilizing a landslide area, there is no proposed building construction or site/topographic modification beyond the slope stabilization measures. The grading has been minimized to the fullest extent, and the slopes are not being graded to create a yard area.

G. Building foundation walls shall be utilized as retaining walls rather than rockeries or retaining structures built separately and away from the building wherever feasible. Freestanding retaining devices are only permitted when they cannot be designed as structural elements of the building foundation;

Finding: No building foundation walls are proposed for stabilization of the landslide hazard area. The shotcrete and soil nail wall is a freestanding retaining device, which is considered by the geotechnical engineer as necessary to stabilize the headscarp of the landslide area.

H. On slopes in excess of 40 percent, use of pole-type construction which conforms to the existing topography is required where feasible. If pole-type construction is not technically feasible, the structure must be tiered to conform to the existing topography and to minimize topographic modification;

Finding: No building construction is proposed.

I. On slopes in excess of 40 percent, piled deck support structures are required where technically feasible for parking or garages over fill-based construction types; and

Finding: No building construction is proposed.

J. Areas of new permanent disturbance and all areas of temporary disturbance shall be mitigated and/or restored pursuant to a mitigation and restoration plan meeting the requirements of LUC 20.25H.210.

Finding: The proposal includes a conceptual mitigation plan showing the revegetation of the steep slope area between the shotcrete wall and the access road along the south property boundary.

A final mitigation/restoration plan is required with submittal of a Clearing & Grading Permit to restore and stabilize the steep slope area. The planting plan shall be prepared by a professional who is experienced and qualified to select plant species and techniques specific for steep slope stabilization.

The final mitigation/restoration plan shall show general planting locations, plant species, plant quantities and size of plant material, and shall include notes to direct stabilization plantings. The mitigation planting is required to be maintained and monitored for five years. The final mitigation plan shall include performance standards to measure the successful establishment of the mitigation plantings. **See Conditions of Approval for Final Mitigation and Restoration Plan in Section IX of this report.**

iii. Consistency with LUC 20.25H.140 – Critical areas report – Additional provisions for landslide hazards and steep slopes.

The following Geotechnical engineering evaluations and reports have been submitted:

1. *Geotechnical Engineering Evaluation, Nguyen Slope Stabilization* - Nelson Geotechnical Associates, Inc., February 15, 2018
2. *Slope Stabilization Alternatives, Nguyen Property Landslide* – Nelson Geotechnical Associates, Inc., January 4, 2019
3. *Civil and Structural Plan Review, Nguyen Slope Stabilization* – Nelson Geotechnical Associates, Inc., June 20, 2019
4. *Project Narrative, Nguyen Landslide Repair* – Nelson Geotechnical Associates, Inc., October 3, 2019
5. *Public Comment Response, Nguyen Property Landslide* - Nelson Geotechnical Associates, Inc., December 13, 2019

6. *Comment Response (drainage), Nguyen Property Landslide* - Nelson Geotechnical Associates, Inc., December 13, 2019

7. *Recognition of Emergency Status, Nguyen Slope Stabilization*, Nelson Geotechnical Associates, Inc., December 13, 2019

The geotechnical reports include an assessment of the geological characteristics of the site and project area, an analysis of the proposal and its relationship to the geologic hazards including potential threats to adjacent properties, and safety measures during construction.

To ensure the approved plans are accurately implemented, the geotechnical consultant shall review clearing & grading plans and observe all aspects of grading, shotcrete/soil nail wall construction, and drainage installation to verify the construction meets project specifications discussed in the geotechnical reports. **See Conditions of Approval for Geotechnical Review and Geotechnical Inspection in Section IX of this report.**

IV. Public Notice and Comment

Application Date: July 29, 2019
Public Notice (500 feet): August 15, 2019
Minimum Comment Period: August 29, 2019

The Notice of Application for this project was published in the City of Bellevue weekly permit bulletin and mailed to property owners within 500 feet of the project site on August 15, 2019.

Comments were received from an adjacent property owner, located to the west of the subject site, regarding the project and are summarized below. The comments described impacts and damage to this adjacent property resulting from the 2017 landslide. The comments also included concerns about the proposed project's drainage and shotcrete wall that are intended to stabilize the landslide area.

The applicant's geotechnical engineer responded to the comments from the adjacent property owner and the comments and responses are found below. The City considered the neighbor's comments and the engineer's response in the staff report findings and conclusions under the applicable critical area code performance standards and decision criteria.

1) Proposal Does Not Consider Repairing 2017 Landslide Damage on Adjacent Property

The adjacent neighbor commented that the proposal does not include or address remedying his slope that was severely damaged in the 2017 landslide. Large amounts of lateral soil support were removed from the slope area on the northeast edge of the property, within approximately 6 to 10 feet of the southwestern side scarp of the recent landslide.

The applicant's engineer responded that their geotechnical documentation and proposal related to the recent landslide and explorations were conducted within the bounds of the subject property. A specific geotechnical evaluation with subsurface explorations for the adjacent parcel should be completed to quantify the slope stability and if there remains

concern for surface infrastructure. Such work is outside of the scope of the current application and would be the prerogative and responsibility of the adjacent property owner. Justification for stabilization of any secondary features on adjacent properties would need to be completed through an in-depth analysis of soil characteristics thereon.

The applicant's engineer states the recommended repairs for the recent landslide are designed in accordance with the Bellevue Land use Code [LUC 20.25H.125(b)] and it is their professional opinion that the planned stabilization measures will preserve the most sensitive portions of the recent landslide, specifically including the main headscarp stabilized by the shotcrete and soil-nail wall, and the toe of slope stabilized by the rock buttresses.

2) Drainage

The neighbor asserted that the proposed remediation plan and the drainage plan did not address water discharged from the Nguyen's property roof drains. The neighbor stated that the drainage prior to 2017 was misdirected downslope, and that a downspout collection drain located next to the private roadway at the base of the slope is exclusively for his use and should not be used for drainage proposed in the remediation plan.

The applicant's geotechnical engineer responded that roof drains from the Nguyen residence currently disperse water toward West Lake Sammamish Parkway NE, not down the slope. The engineer stated that a portion of the runoff may flow toward the steep slope, "but it does not appear to have significantly contributed to the recent landslide activity or active erosion at the site." The engineer further explained that soils on the site are likely incapable of infiltration of stormwater and therefore the primary concern for stormwater runoff is the concentration of surface water on the sensitive landslide area; however, there are no indicators of surface erosion near where dispersion occurs on the site. The engineer concluded the existing drainage picture does not warrant an emergency revision as part of this scope of work.

Surface water runoff from the slope is currently directed as sheet flow across the private roadway at the base of the slope and adjacent properties unless intercepted by drainage infrastructure. The drainage pattern would remain unchanged by the proposed rock spill buttresses at the base of the remediation slope and the proposed buttresses would not intersect zones of perched groundwater or the regional groundwater table.

The "downspout collection drain" on the shoulder of the private roadway at the base of the slope appears to be a catch basin that collects stormwater from slope and the roadway. The submitted plans do not show Nguyen's drainage systems connecting to this structure.

3) Shotcrete Wall

The neighbor stated that the proposed shotcrete wall in the remediation plan would use his slope for lateral support, and if the soil structure cannot handle the load, another landslide may occur.

The applicant's geotechnical engineer responded that the shotcrete wall functions mainly as surficial coverage of the exposed landslide headscarp and the proposed stabilization measures will preserve the most sensitive portions of the recent landslide. The engineer

explained that the physical balance of forces will be dependent on the soil nails as part of the design. The shotcrete wall would actually draw lateral support from the soil anchors installed beneath Nguyen's house. Vertical support would be provided from the pin piles installed beneath the shotcrete wall. The loads from these supporting elements would not have influence on the slope on the adjacent property.

V. Summary of Technical Reviews

A. Clearing and Grading:

The Clearing and Grading Division of the Development Services Department has reviewed the proposed site development and geotechnical report for compliance with Clearing and Grading codes and standards. Clearing and Grading review conditions of approval are included in Section IV below.

VI. State Environmental Policy Act (SEPA)

The environmental review indicates no probability of significant adverse environmental impacts occurring as a result of the proposal. The Environmental Checklist and geotechnical reports submitted with the application adequately disclose expected environmental impacts associated with the project. City codes and requirements, including the Clear and Grade Code, Utility Code, Land Use Code, Noise Ordinance, and other construction codes are expected to adequately address and mitigate potential environmental impacts. Therefore, issuance of a Determination of Non-Significance (DNS) is the appropriate threshold determination under the State Environmental Policy Act (SEPA) requirements.

C. Earth and Water

The proposal is to stabilize and repair a steep slope and landslide hazard area. The applicant's engineer conducted geotechnical investigations and proposed specific measures to stabilize the landslide hazard area.

The applicant will be required to obtain a clearing and grading permit and follow erosion and sediment control best management practices to prevent erosion impacts. Clearing and Grading Review has required rainy season restrictions to address potential erosion impacts. **See Conditions of Approval for Rainy Season Restrictions in Section X of this report**

D. Plants

The proposal includes a restoration plan to revegetate the disturbed steep slope area with native plant species. Revegetation of the existing steep slope area would restore natural, deep-rooting vegetation to the slopes affected by landslide activity, which would facilitate/assist slope stabilization and the native plants would improve wildlife habitat functions.

VII. Decision Criteria

A. Consistency with LUC 20.30P.140 – Critical Areas Land Use Permit – Decision criteria.

1. The proposal obtains all other permits required by the Land Use Code;

Finding: The applicant must obtain a clearing and grading permit prior to beginning construction. **See Conditions of Approval for Clearing and Grading Permit Required in Section IX of this report.**

2. The proposal utilizes to the maximum extent possible the best available construction, design and development techniques which result in the least impact on the critical area and critical area buffer;

Finding: The proposal is to stabilize a steep slope critical area previously damaged in a land/mud slide. The geotechnical engineer has recommended specific, best available construction techniques to effectively stabilize the slope and result in the least impact to the steep slope/landslide hazard critical area. The proposed shotcrete and soil-nail wall is intended to stabilize the main headscarp of the landslide and the toe of the slope stabilized by rock buttresses. Revegetation of the existing steep slope area is proposed to restore natural, deep-rooting vegetation to the slopes affected by landslide activity.

3. The proposal incorporates the performance standards of Part 20.25H to the maximum extent applicable, and ;

Finding: As discussed in Section III, the applicable performance standards of LUC 20.25H are being met.

4. The proposal will be served by adequate public facilities including street, fire protection, and utilities; and;

Finding: The site is currently served by adequate public facilities and the proposal would stabilize the steep slope to protect utilities and infrastructure.

5. The proposal includes a mitigation or restoration plan consistent with the requirements of LUC Section 20.25H.210; and

Finding: The proposal includes a restoration plan to revegetate the disturbed steep slope area with native plant species. Revegetation of the existing steep slope area would restore natural, deep-rooting vegetation to the slopes affected by landslide activity, which would promote slope stabilization and the native plants would improve wildlife habitat functions.

A final mitigation plan is required to show general planting locations, plant species, plant quantities and size of plant material, and shall include notes to direct stabilization plantings. The mitigation planting is required to be maintained and monitored for five

years. The final mitigation plan shall include performance standards to measure the successful establishment of the mitigation plantings. **See Conditions of Approval for a Final Mitigation and Restoration Plan in Section IX of this report.**

6. The proposal complies with other applicable requirements of this code.

Finding: As discussed in this report, the proposal complies with all other applicable requirements of the Land Use Code.

VIII. Conclusion and Decision

After conducting the various administrative reviews associated with this proposal, including Land Use Code consistency, City Code and Standard compliance reviews, the Director of the Development Services Department does hereby **approve with conditions** the proposal to for stabilization of a steep slope critical area.

Approval of this Critical Areas Land Use Permit does not constitute a permit for construction. A Clearing and Grading Permit is required, and all plans are subject to review for compliance with applicable City of Bellevue codes and standards.

Note- Expiration of Approval: In accordance with LUC 20.30P.150 a Critical Areas Land Use Permit automatically expires and is void if the applicant fails to file for construction or other necessary development permits within one year of the effective date of the approval.

IX. Conditions of Approval

The applicant shall comply with all applicable Bellevue City Codes and Ordinances including but not limited to:

<u>Applicable Ordinances</u>	<u>Contact Person</u>
Clearing and Grading Code- BCC 23.76	Tom McFarlane, 425-452-5207
Land Use Code- BCC 20.25H	Peter Rosen, 425-452-5210

The following conditions are imposed under the Bellevue City Code referenced:

- 1. Clearing and Grading Permit Required:** Approval of this Critical Areas Permit does not constitute an approval of any construction permit. An application for a clearing and grading permit must be submitted and approved before construction can begin. Plans submitted as part of any permit application for this project shall be consistent with the activity permitted under this approval and must comply with the City of Bellevue Clearing and Grading Code (BCC 23.76).

Authority: Clearing & Grading Code 23.76.035

Reviewer: Tom McFarlane, Development Services Department, Clearing & Grading
Section

- 2. Geotechnical Review:** The project geotechnical engineer must review the final construction plans, including pin pile and soil nail wall designs. A letter from the geotechnical engineer stating that the plans conform to the recommendations in the geotechnical report and any addendums and supplements must be submitted to the clearing and grading section prior to issuance of the construction permit.

Authority: Clearing & Grading Code 23.76.050

Reviewer: Tom McFarlane, Development Services Department, Clearing & Grading Section

- 3. Geotechnical Inspection:** The project geotechnical engineer must provide geotechnical inspection during project construction, including monitoring and testing of soil cuts and fill, installation of pin piles, installation of the soil nail wall(s), placement of the rock buttresses, and any unusual seepage, slope, or subgrade conditions.

Authority: Clearing & Grading Code 23.76.050

Clearing & Grading Code 23.76.160

Reviewer: Tom McFarlane, Development Services Department, Clearing & Grading Section

- 4. Rainy Season Restrictions:** Due to steep slopes on the site, no clearing and grading activity may occur during the rainy season, which is defined as October 1 through April 30 without written authorization of the Development Services Department. Should approval be granted for work during the rainy season, increased erosion and sedimentation measures, representing the best available technology must be implemented prior to beginning or resuming site work.

Authority: Bellevue City Code 23.76.093.A,

Reviewer: Tom McFarlane, Development Services Department, Clearing & Grading Section

- 5. Hold Harmless Agreement:** Prior to Clearing and Grading Permit approval, the property owner or his/her agent shall submit a hold harmless agreement releasing the City of Bellevue from any and all liability associated with the proposed construction and associated improvements. The land use division will provide a template to be completed and recorded with King County Department of Assessments.

Authority: Land Use Code 20.30P.170

Reviewer: Peter Rosen, Development Services Department

- 6. Final Mitigation and Restoration Plan:** The Clearing & Grading Permit submittal shall include a final restoration planting plan to restore and stabilize the steep slope area. The planting plan shall be prepared by a professional who is experienced and qualified to select plant species and techniques specific for steep slope stabilization.

A final mitigation plan is required to show general planting locations, plant species, plant quantities and size of plant material, and shall include notes to direct stabilization plantings. The mitigation planting is required to be maintained and monitored for five years. The final

mitigation plan shall include performance standards to measure the successful establishment of the mitigation plantings.

Authority: Land Use Code 20.25H.220

Reviewer: Peter Rosen, Development Services Department

- 7. Final Mitigation and Restoration Plan Performance Standards:** The final mitigation plan shall include performance standards to measure the successful establishment of the mitigation plantings. The following performance standards are acceptable and shall be included on the final mitigation plans:

Year 1 (from date of plant installation)

- 100% survival of all installed plants and/or replanting in following dormant season to reestablish 100%
- Maximum 10% coverage of invasive plants in planting area

Year 2 (from date of plant installation)

- At least 90% survival of all installed material
- Maximum 10% coverage of invasive plants in planting area

Year 3, 4, & 5 (from date of plant installation)

- At least 85% survival of all installed material
- Maximum 10% coverage of invasive plants in planting area

Authority: Land Use Code 20.25H.220

Reviewer: Peter Rosen, Development Services Department

- 8. Maintenance and Monitoring Surety:** A financial surety is required to be submitted to ensure the mitigation planting successfully establishes. A maintenance assurance device that is equal to 20% of the cost of plants, installation, and the cost of monitoring is required to be held for a period of five years from the date of successful installation. A cost estimate is required to be provided with the building permit. The financial surety is required to be posted prior to building permit issuance. Release of the surety after the 5-year monitoring period is contingent upon a final inspection of the planting by Land Use Staff that finds the maintenance and monitoring plan was successful and the mitigation meets performance standards.

Authority: Land Use Code 20.25H.220

Reviewer: Peter Rosen, Development Services Department

- 9. Maintenance and Monitoring Reports:** The mitigation planting is required to be maintained and monitored for five years to ensure the plants successfully establish. Annual monitoring reports are required to be submitted to document the plants are meeting approved performance standards. Photos from selected photo points shall be included in the monitoring reports to document the planting. Land Use inspection is required by Land Use staff to end

the plant monitoring period.

Reporting shall be submitted no later than December 31st of each monitoring year and shall include a site plan and photos from photo points established at the time of Land Use inspection. Reports shall be submitted to Peter Rosen or Heidi Bedwell by the above listed date and can be emailed to prosen@bellevuewa.gov or mailed directly to:

Environmental Planning Manager
Development Services Department
City of Bellevue
PO Box 90012
Bellevue, WA 98009-9012

Authority: Land Use Code 20.30P.140; 20.25H.220

Reviewer: Peter Rosen, Development Services Department

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425.778.8500 FAX 778.5536
CONTACT: GREG GUILLEN, PE, SE

NELSON GEOTECHNICAL
17311 135TH AVE NE SUITE A-500
WOODINVILLE, WA 98072
425.486.1669
CONTACT: KHALED SHAWISH, PE

PACIFIC COAST SURVEYS
PO BOX 13619
MILL CREEK, WA 98082
425.508.4951
CONTACT: DARREN RIDDLE

FOUND CONC. MON. IN CASE W/3'
C.O.B. BRASS DISK. W. LAKE
SAMMAMISH PRKY.
N.E. ELEV. = 462.55'
CITY OF BELLEVUE HOR. STATION:
0510

NAVD 88

THAT PORTION OF GOVERNMENT LOT 1 OF SECTION 36, TOWNSHIP 25 NORTH, RANGE 5 EAST W.M., IN KING COUNTY, WASHINGTON LYING SOUTHEASTERLY OF LAKE SAMMAMISH SHORE LINE ROAD AND LYING BETWEEN TWO LINES WHICH ARE 380 FEET AND 480 FEET RESPECTIVELY OF (MEASURED AT RIGHT ANGLES) AND PARALLEL WITH A LINE WHICH BEARS SOUTH 44°49'19" EAST FROM THE NORTHEAST CORNER OF SAID GOVERNMENT LOT 1;
EXCEPT THAT PORTION LYING SOUTHEASTERLY OF THE NORTHWESTERLY LINE OF THE FOLLOWING DESCRIBED EASEMENT, THE NORTHWESTERLY MARGIN OF SAID STRIP BEING DESCRIBED AS FOLLOWS;

COMMENCING AT THE NORTHWEST CORNER OF SAID GOVERNMENT LOT 1, SECTION 36.
THENCE SOUTH 35°52'33" WEST 742.44 FEET TO THE TRUE POINT OF BEGINNING OF SAID NORTHWESTERLY MARGIN;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 200 FEET, AN INITIAL BEARING OF SOUTH 41°30'60" EAST AN ARC DISTANCE OF 44.69
FEET;

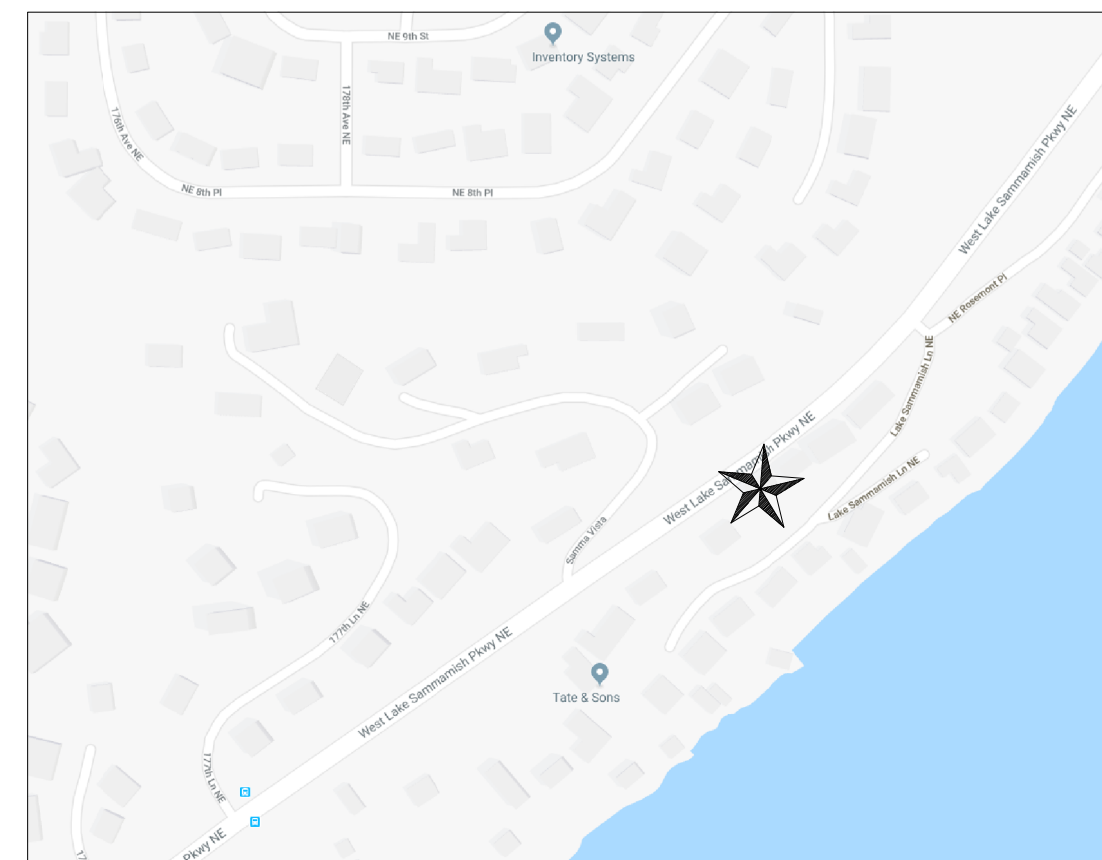
THENCE NORTH 10°27'11" EAST 48.38 FEET;
THENCE ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 68.18 FEET, AN ARC DISTANCE OF 81.31 FEET;
THENCE NORTH 78°47'22" EAST 30.84 FEET;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 90.36 FEET, AN ARC DISTANCE OF 398.36 FEET;
THENCE NORTH 53°49'47" EAST 127.41 FEET;
THENCE NORTH 41°13'08" EAST 100.55 FEET;
THENCE NORTH 26°43'50" EAST 157 FEET;
THENCE ALONG A CURVE TO THE LEFT HAVING A RADIUS OF 48.14 FEET, AN ARC DISTANCE OF 53 FEET MORE OR LESS, TO THE LAKE SAMMAMISH SHORE LINE ROAD AND THE END OF SAID MARGIN OF SAID STRIP.
EXCEPT THAT PORTION OF THE ABOVE DESCRIBED PROPERTY LYING TO THE NORTHEAST OF THE FOLLOWING DESCRIBED LINE:
COMMENCING AT THE LAKE SAMMAMISH SHORE LINE ROAD 380 FEET (MEASURED AT RIGHT ANGLES) AND PARALLEL WITH A LINE WHICH BEARS S 89° 01' 00" E 100 FEET FROM THE NORTHEAST CORNER OF SAID CEMENT LOT;
THENCE SOUTH 30°12'46" EAST 85.93 FEET TO THE NORTHWESTLY MARGIN OF THE ABOVE DESCRIBED EASEMENT.

SITUATE IN THE COUNTY OF KING, STATE OF WASHINGTON.

362505-9136

TOTAL LOT AREA	= 11,761 SQFT
EX BUILDING FOOTPRINT	= 1,190 SQFT
PROPOSED BUILDING FOOTPRINT	= NOT TO CHANGE
TOTAL IMPERVIOUS SURFACE	= NOT TO CHANGE

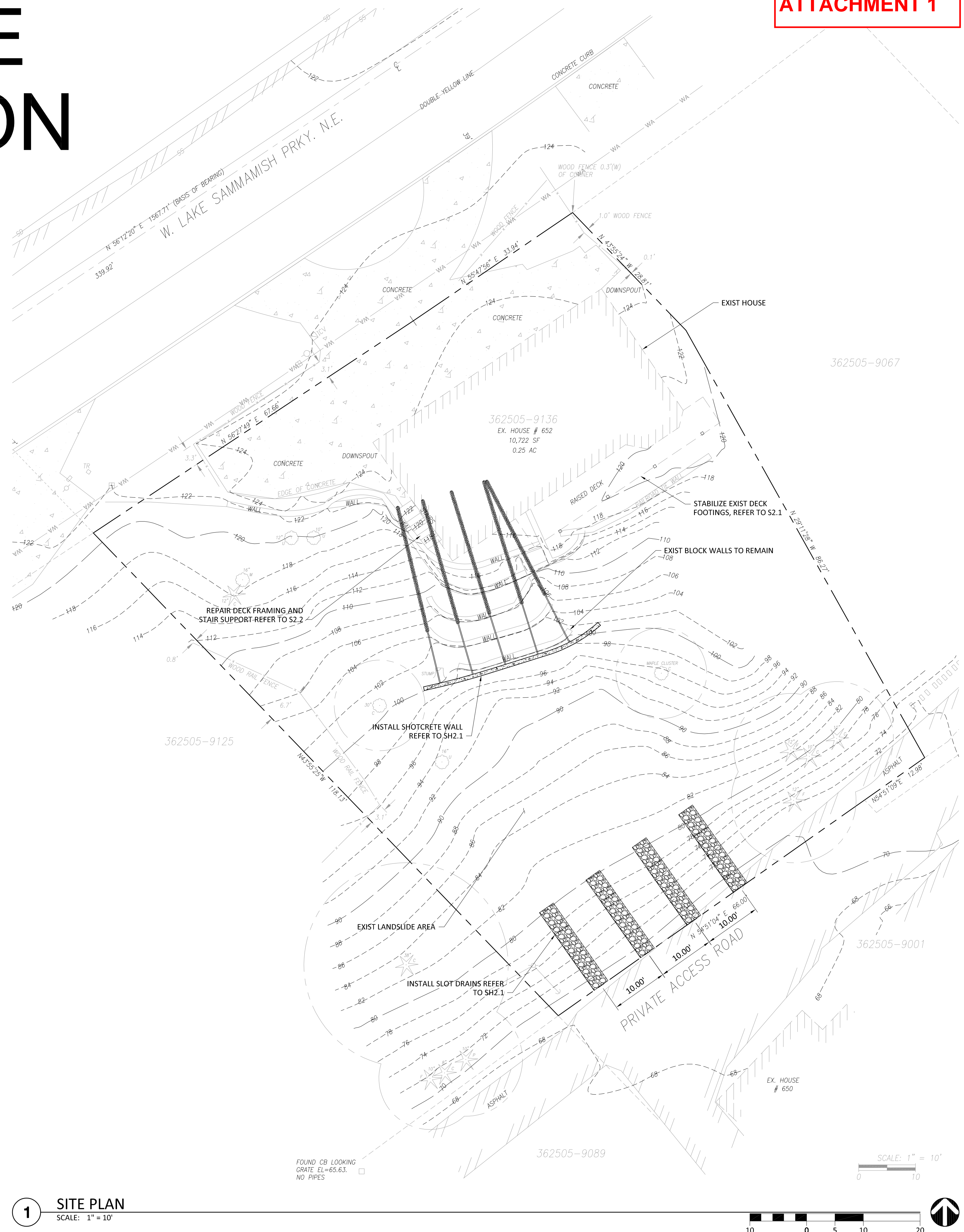
- STABILIZE EXISTING SLOPE WITH SHOTCRETE WALL NEAR TOP OF SLOPE TO PROTECT EXISTING LANDSCAPE SCARP.
- REINFORCE TOE OF SLOPE WITH ROCK SPALL BUTTRESSES TO IMPROVE SLOPE STABILITY & PROMOTE DRAINAGE.
- REPAIR EXISTING STAIR AND DECK FRAMING.



NTS ★ = PROJECT SITE



SHEET INDEX	
C1.1	COVER SHEET & SITE PLAN
C1.2	GENERAL NOTES
C2.1	TEMPORARY EROSION CONTROL PLAN & DETAILS
SH1.1	SHORING NOTES
SH2.1	SHORING WALL PLAN
SH3.1	WALL SECTION & PROFILE
SH4.1	SHORING DETAILS
S1.1	STRUCTURAL NOTES
S2.1	FOUNDATION & SECOND FLOOR FRAMING PLAN
S2.2	THIRD FLOOR & ROOF FRAMING PLAN
S3.1	FOUNDATION DETAILS
S4.1	DECK FRAMING DETAILS



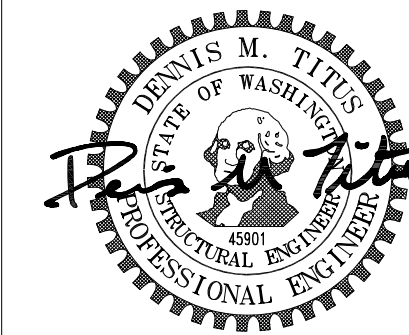
1 SITE PLAN

SCALE: 1" = 10'

SCALE: 1" = 10'



250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536



06/07/19

[illegible]

DESIGN:	MBE
DRAWN:	JCF
CHECK:	DMT
JOB NO:	18149.10
DATE:	04/22/10

NGUYEN RESIDENCE SLOPE STABILIZATION
 652 W LAKE SAMMAMISH PKWY NE
 BELLEVUE, WA 98008

COVER SHEET & SITE PLAN

SHEET:

C1.1

CIVIL NOTES

[THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS]

GENERAL NOTES:

- ALL WORK SHALL CONFORM TO THE 2018 EDITION OF THE CITY OF BELLEVUE UTILITIES DEPARTMENT ENGINEERING STANDARDS.
- THE CONTRACTOR SHALL USE A VACUUM STREET SWEEPER TO REMOVE DUST AND DEBRIS FROM PAVEMENT AREAS.
- WHEN WORK IS TO OCCUR IN EASEMENTS, THE CONTRACTOR SHALL NOTIFY THE EASEMENT GRANTOR AND CITY'S INSPECTOR IN WRITING A MINIMUM OF 48 HOURS IN ADVANCE OF BEGINNING WORK (NOT INCLUDING WEEKENDS OR HOLIDAYS). FAILURE TO NOTIFY GRANTOR AND THE CITY'S INSPECTOR WILL RESULT IN A STOP WORK ORDER BEING POSTED UNTIL THE MATTER IS RESOLVED TO THE SATISFACTION OF THE UTILITY. A WRITTEN RELEASE FROM THE EASEMENT GRANTOR SHALL BE FURNISHED TO THE CITY'S INSPECTOR PRIOR TO PERMIT SIGN-OFF.
- INSTALL FLOW DIVERSION MEASURES OUTSIDE OF THE CRITICAL ROOT ZONE OF TREES TO BE PROTECTED. AT NO TIME SHALL CONSTRUCTION STORMWATER BE DIRECTED TOWARDS TREES TO BE PROTECTED. CONSTRUCTION STORMWATER SHALL NOT POND WITHIN A TREE'S CRITICAL ROOT ZONE.
- ALL TRENCHES SHALL BE BACKFILLED, COMPACTED, AND PAVEMENT IN PLACE INPAVED AREAS, PRIOR TO TESTING STORM PIPES FOR ACCEPTANCE.

STORM DRAINAGE NOTES:

- STORM PIPE SHALL BE PVC CONFORMING TO ASTM D-3034 SDR 35 (4" - 15") OR ASTM F- 679 (18"-27"). BEDDING AND BACKFILL SHALL BE AS SHOWN IN THE STANDARD DETAILS.
- THE FOOTING DRAINAGE SYSTEM AND THE ROOF DOWNSPOUT SYSTEM SHALL NOT BE INTERCONNECTED AND SHALL SEPARATELY CONVEY COLLECTED FLOWS TO THE CONVEYANCE SYSTEM OR TO ON-SITE STORMWATER FACILITIES.
- PRIOR TO FINAL INSPECTION AND ACCEPTANCE OF STORM DRAINAGE WORK, PIPES AND STORM DRAIN STRUCTURES SHALL BE CLEANED AND FLUSHED. ANY OBSTRUCTIONS TO FLOW WITHIN THE STORM DRAIN SYSTEM, (SUCH AS RUBBLE, MORTAR AND WEDGED DEBRIS), SHALL BE REMOVED AT THE NEAREST STRUCTURE. WASH WATER OF ANY SORT SHALL NOT BE DISCHARGED TO THE STORM DRAIN SYSTEM OR SURFACE WATERS.
- ENDS OF EACH STORM DRAIN STUB AT THE PROPERTY LINE SHALL BE CAPPED AND LOCATED WITH AN 8" LONG 2" X 4" BOARD, EMBEDDED TO THE STUB CAP AND EXTENDING AT LEAST 3 FEET ABOVE GRADE, AND MARKED PERMANENTLY "STORM". A COPPER 12 GA. LOCATE WIRE FIRMLY ATTACHED. THE STUB DEPTH SHALL BE INDICATED ON THE MARKER.
- ALL GRATES IN ROADWAYS SHALL BE DUCTILE IRON, BOLT-LOCKING, VANED GRATES PER THE STANDARD DETAILS. STRUCTURES IN TRAFFIC LANES OUTSIDE OF THE CURB LINE WHICH DO NOT COLLECT RUNOFF SHALL BE FITTED WITH ROUND, BOLT-LOCKING FRAMES AND SOLID COVERS. OFF-STREET STRUCTURES WHICH DO NOT COLLECT RUNOFF SHALL BE FITTED WITH BOLT-LOCKING SOLID COVERS.
- VEGETATION/LANDSCAPING IN THE DETENTION POND, BIORETENTION FACILITY, VEGETATED ROOF AND/OR DRAINAGE SWALE(S) ARE AN INTEGRAL PART OF THE RUNOFF TREATMENT SYSTEM FOR THE PROJECT. SUCH DRAINAGE FACILITIES WILL NOT BE ACCEPTED UNTIL PLANTINGS ARE ESTABLISHED.
- ALL NEW MANHOLES SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES AND SHALL CONFORM TO THE STANDARD DETAILS. ALL NEW CATCH BASINS SHALL CONFORM TO THE STANDARD DETAILS.
- STORM STUB STATIONS ARE REFERENCED FROM NEAREST DOWNSTREAM MANHOLE/ CATCH BASIN.
- ALL TESTING AND CONNECTIONS TO EXISTING MAINS SHALL BE DONE IN THE PRESENCE OF THE CITY'S INSPECTOR.
- ALL PUBLIC STORM DRAINS SHALL BE AIR TESTED AND HAVE A VIDEO INSPECTION PERFORMED PRIOR TO ACCEPTANCE (SEE #17 BELOW). STORM MAIN CONSTRUCTED WITH FLEXIBLE PIPE SHALL BE DEFLECTION TESTED WITH A MANDREL PRIOR TO ACCEPTANCE.
- STORM STUBS SHALL BE TESTED FOR ACCEPTANCE AT THE SAME TIME THE STORM MAIN IS TESTED.
- ALL MANHOLES/ CATCH BASINS IN UNPAVED AREAS SHALL INCLUDE A CONCRETE SEAL AROUND ADJUSTMENT RINGS PER STANDARD DETAILS.
- ALL STORM MAIN EXTENSIONS WITHIN THE PUBLIC RIGHT-OF-WAY OR IN EASEMENTS MUST BE "STAKED" BY A SURVEYOR LICENSED IN WASHINGTON STATE FOR "LINE AND GRADE" AND CUT SHEETS PROVIDED TO THE CITY'S INSPECTOR, PRIOR TO STARTING CONSTRUCTION.
- STORM DRAINAGE MAINLINES, STUBS AND FITTINGS SHALL BE CONSTRUCTED USING THE SAME PIPE MATERIAL AND MANUFACTURER. CONNECTIONS BETWEEN STUBS AND THE MAINLINE WILL BE MADE WITH A TEE FITTING. TEE FITTING SHALL BE FROM SAME MANUFACTURER AS PIPE. CUT-IN CONNECTIONS ARE ONLY ALLOWED WHEN CONNECTING A NEW STUB TO AN EXISTING MAINLINE.
- MANHOLES, CATCH BASINS AND VAULTS ARE CONSIDERED TO BE PERMIT-REQUIRED CONFINED SPACES. ENTRY INTO THESE SPACES SHALL BE IN ACCORDANCE WITH CHAPTER 296-809 WAC.
- PLACEMENT OF SURFACE APPURTENANCES (MH LIDS, VALVE LIDS, ETC.) IN TIRE TRACKS OF TRAFFIC LANES SHALL BE AVOIDED WHENEVER POSSIBLE.
- THE CONTRACTOR SHALL PERFORM A VIDEO INSPECTION AND PROVIDE A DIGITAL COPY OF THE VIDEO INSPECTION FOR THE CITY'S REVIEW. THE VIDEO SHALL PROVIDE A MINIMUM OF 480 X 640 RESOLUTION AND COVER THE ENTIRE LENGTH OF THE APPLICABLE PIPE. THE CAMERA SHALL BE MOVED THROUGH THE PIPE AT A UNIFORM RATE (5 30 FT/MIN), STOPPING WHEN NECESSARY TO ENSURE PROPER DOCUMENTATION OF THE PIPE CONDITION. THE VIDEO SHALL BE TAKEN AFTER INSTALLATION AND CLEANING TO INSURE THAT NO DEFECTS EXIST. THE PROJECT WILL NOT BE ACCEPTED UNTIL ALL DEFECTS HAVE BEEN REPAIRED.
- NOT USED.
- ALL CONCRETE STRUCTURES (VAULTS, CATCH BASINS, MANHOLES, OIL/WATER SEPARATORS, ETC.) SHALL BE VACUUM TESTED.
- MANHOLES, CATCH BASINS AND INLETS IN EASEMENTS SHALL BE CONSTRUCTED TO PROVIDE A STABLE, LEVEL GRADE FOR A MINIMUM RADIUS OF 2.5 FEET AROUND THE CENTER OF THE ACCESS OPENING TO ACCOMMODATE CONFINED SPACE ENTRY EQUIPMENT.
- TOPS OF MANHOLES/ CATCH BASINS WITHIN PUBLIC RIGHT-OF-WAY SHALL NOT BE ADJUSTED TO FINAL GRADE UNTIL AFTER PAVING.
- CONTRACTOR SHALL ADJUST ALL MANHOLE/ CATCH BASIN RIMS TO BE FLUSH WITH FINAL FINISHED GRADES, UNLESS OTHERWISE SHOWN.
- DURING CONSTRUCTION, CONTRACTOR SHALL INSTALL, AT ALL CONNECTIONS TO EXISTING DOWNSTREAM MANHOLES/CATCH BASINS, SCREENS OR PLUGS TO PREVENT FOREIGN MATERIALS FROM ENTERING EXISTING STORM DRAINAGE SYSTEM. SCREENS OR PLUGS SHALL REMAIN IN PLACE THROUGHOUT THE DURATION OF THE CONSTRUCTION AND SHALL BE REMOVED ALONG WITH COLLECTED DEBRIS AT THE TIME OF FINAL INSPECTION AND IN THE PRESENCE OF THE CITY'S INSPECTOR.
- NOT USED.
- MINIMUM COVER OVER STORM DRAINAGE PIPE SHALL BE 2 FEET, UNLESS OTHERWISE SHOWN.
- REDIRECT SHEET FLOW, BLOCK DRAIN INLETS AND/OR CURB OPENINGS IN PAVEMENT AND INSTALL FLOW DIVERSION MEASURES TO PREVENT CONSTRUCTION SILT LADEN RUNOFF AND DEBRIS FROM ENTERING EXCAVATIONS AND FINISH SURFACES FOR BIORETENTION FACILITIES AND PERMEABLE PAVEMENTS.
- WHERE AMENDED SOILS, BIORETENTION FACILITIES, AND PERMEABLE PAVEMENTS ARE INSTALLED, THESE AREAS SHALL BE PROTECTED AT ALL TIMES FROM BEING OVER-COMPACTED.

UTILITY NOTES:

- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN ESTABLISHED BY FIELD SURVEY OR OBTAINED FROM AVAILABLE RECORDS AND SHOULD THEREFORE BE CONSIDERED APPROXIMATE ONLY AND NOT NECESSARILY COMPLETE. IT IS THE SOLE RESPONSIBILITY OF THE EXCAVATOR TO INDEPENDENTLY VERIFY THE ACCURACY OF ALL UTILITY LOCATIONS SHOWN, AND TO FURTHER DISCOVER AND AVOID ANY OTHER UTILITIES NOT SHOWN HERE ON WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THIS PLAN. IMMEDIATELY NOTIFY THE RESPONSIBLE PROFESSIONAL ENGINEER IF A CONFLICT EXISTS.
- CALL 1-800-424-5555, OR 8-1-1, 72 HOURS BEFORE CONSTRUCTION FOR UTILITY LOCATES.
- THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF FIVE FEET (5') HORIZONTAL SEPARATION BETWEEN ALL WATER AND STORM DRAINAGE LINES. ANY CONFLICT SHALL BE REPORTED TO THE UTILITY AND THE RESPONSIBLE PROFESSIONAL ENGINEER PRIOR TO CONSTRUCTION.
- AVOID CROSSING WATER OR SEWER MAINS AT HIGHLY ACUTE ANGLES. THE SMALLEST ANGLE MEASURE BETWEEN UTILITIES SHOULD BE 45 DEGREES.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT NO CONFLICTS EXIST BETWEEN STORM DRAINAGE FACILITIES AND PROPOSED OR EXISTING UTILITIES PRIOR TO CONSTRUCTION.
- AT POINTS WHERE EXISTING THRUST BLOCKING IS FOUND, MINIMUM CLEARANCE BETWEEN CONCRETE BLOCKING AND OTHER BURIED UTILITIES OR STRUCTURES SHALL BE 5 FEET.
- WHERE A NEW UTILITY LINE CROSSES BELOW AN EXISTING AC MAIN, THE AC PIPE SHALL BE REPLACED WITH DI PIPE TO 3 FEET PAST EACH SIDE OF THE TRENCH AS SHOWN ON STANDARD DETAIL W-8. ALTERNATIVELY, APPROVED IN WRITING BY THE UTILITY, THE TRENCH MAY BE BACKFILLED WITH CONTROLLED DENSITY FILL (CDF, AKA FLOWABLE FILL) FROM BOTTOM OF TRENCH TO BOTTOM OF AC MAIN.

EROSION CONTROL NOTES:

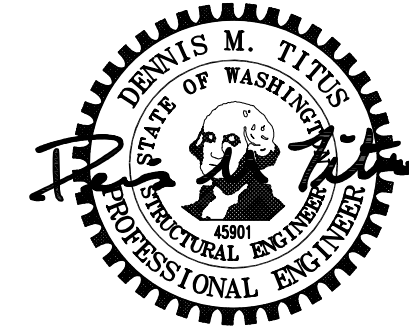
- PROVIDE AND MAINTAIN TEMPORARY SEDIMENTATION COLLECTION FACILITIES TO ENSURE THAT SEDIMENT OR OTHER HAZARDOUS MATERIALS DO NOT ENTER THE STORM DRAINAGE SYSTEM IN ACCORDANCE WITH THE SITES APPROVED CSWPPP.

RESTORATION NOTES:

- SURFACE RESTORATION OF EXISTING ASPHALT PAVEMENT SHALL BE AS REQUIRED BY THE RIGHT-OF-WAY USE PERMIT.
- THE CONTRACTOR SHALL RESTORE THE RIGHT-OF-WAY AND EXISTING PUBLIC STORM DRAINAGE EASEMENT(S) AFTER CONSTRUCTION TO A CONDITION EQUAL OR BETTER THAN CONDITION PRIOR TO ENTRY. THE CONTRACTOR SHALL FURNISH A SIGNED RELEASE FROM ALL AFFECTED PROPERTY OWNERS AFTER RESTORATION HAS BEEN COMPLETED.

ENGINEERING

250 4TH AVE. S., SUITE 200
EDMONDS, WASHINGTON 98020
PHONE (425) 778-8500
FAX (425) 778-5536



06/07/19

MARK	DATE	DESCRIPTION	
		EMERGENCY PERMIT SUBMITTAL	PERMIT SUBMITTAL
	10/05/18		
	06/07/19		

DESIGN:	MBB
DRAWN:	JCP
CHECK:	DMT
JOB NO:	18149.10
DATE:	04/22/19

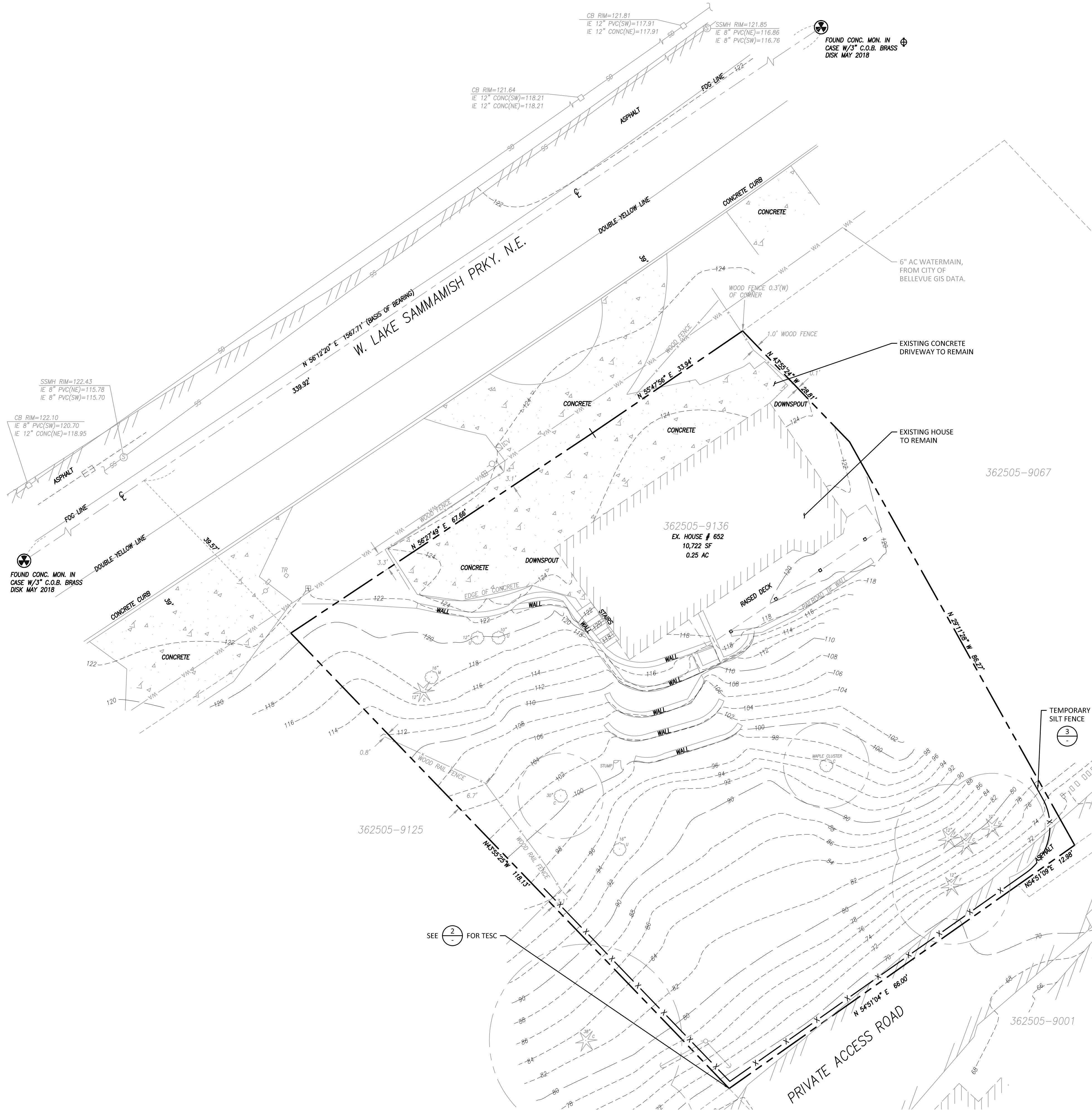
NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

CIVIL NOTES

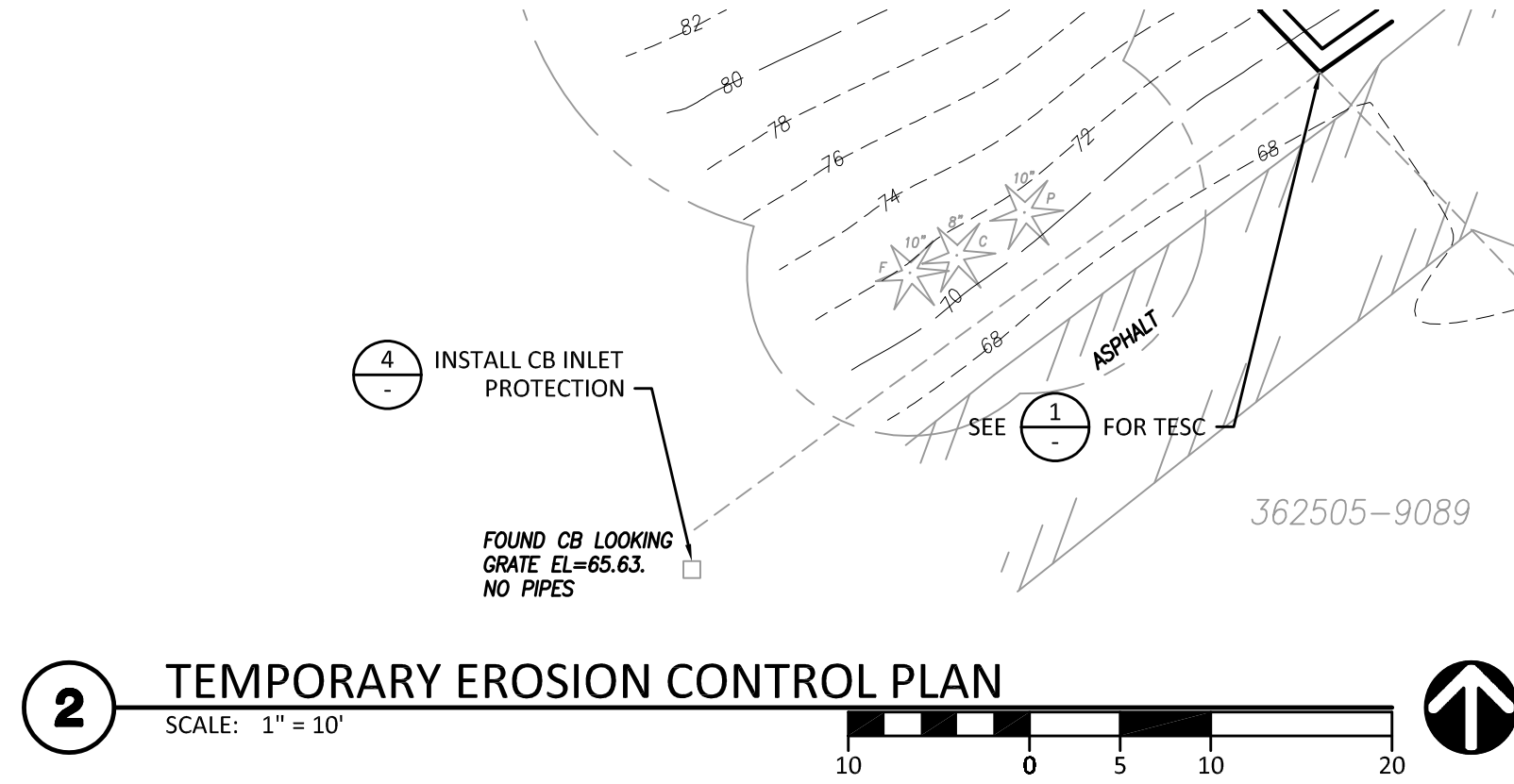
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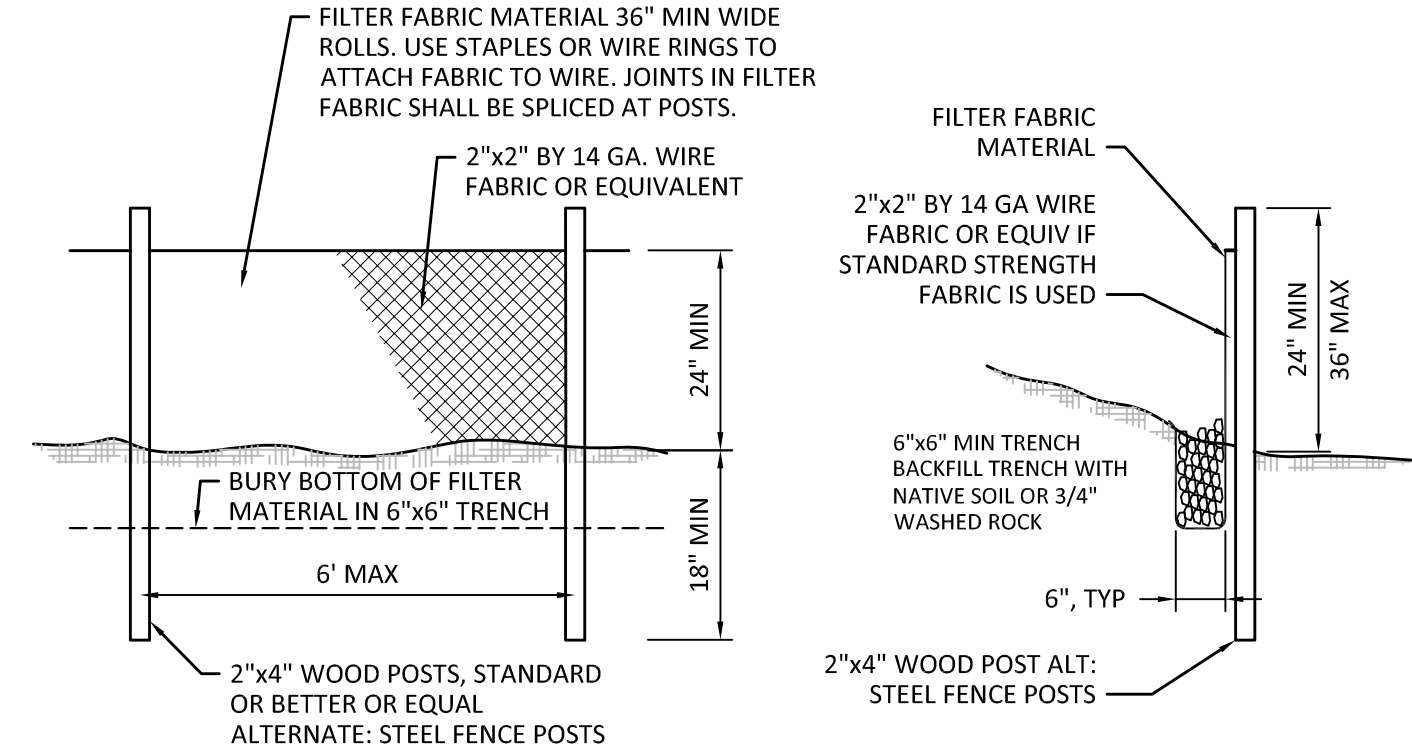
C1.2



1 TEMPORARY EROSION CONTROL PLAN
SCALE: 1" = 10'



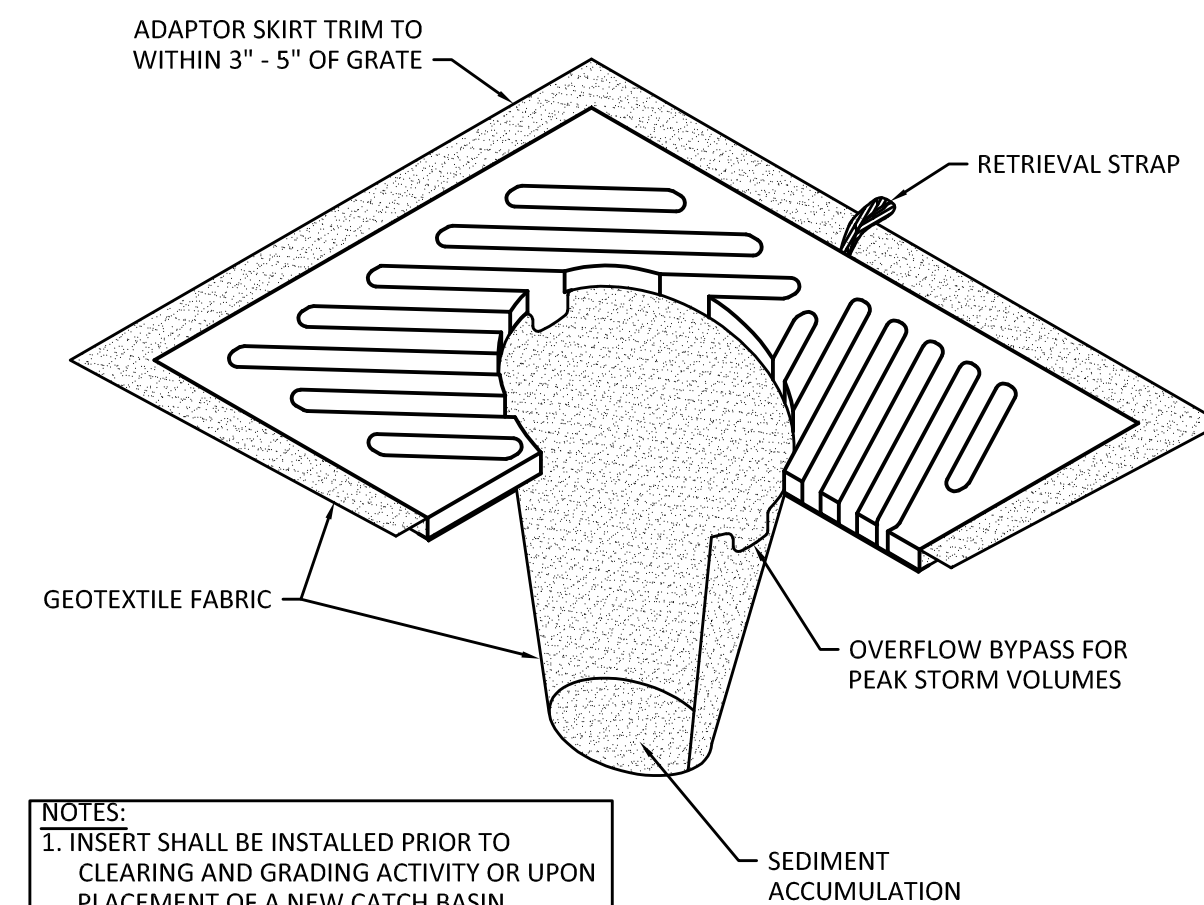
2 TEMPORARY EROSION CONTROL PLAN
SCALE: 1" = 10'



SILT FENCE NOTES:

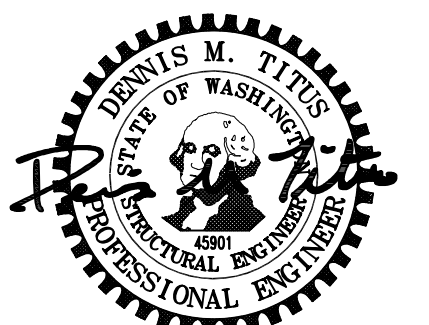
1. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6 INCH OVERLAP, AND BOTH ENDS SECURELY FASTENED TO THE POST.
2. THE SILT FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS (WHERE FEASIBLE). THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 18 INCHES).
3. A SHALLOW TRENCH SHALL BE EXCAVATED, ROUGHLY 6 INCHES WIDE AND 6 INCHES DEEP, UPSLOPE AND ADJACENT TO THE WOOD POSTS TO ALLOW THE LOWER EDGE OF THE FILTER FABRIC TO BE SECURED WITH GRAVEL.
4. WHEN FILTER FABRIC NOT AS STRONG AS MIRAFI 700X IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY-DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE MESH SHALL EXTEND INTO THE SHALLOW TRENCH A MINIMUM OF 4 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
5. THE MIRAFI 700X FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND AT LEAST 18 INCHES OF THE FABRIC SHALL BE BURIED IN THE SHALLOW TRENCH. THE FILTER FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE AND SHALL NOT BE STAPLED TO TREES.
6. WHEN EXTRA-STRENGTH FILTER FABRIC (MIRAFI 700X OR EQUAL) AND FOUR (4') POST SPACING IS USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS WITH ALL OTHER PROVISIONS OF NOTE 5 APPLYING.
7. THE TRENCH SHALL BE BACKFILLED WITH NATIVE SOIL OR 3/4" - 1.5" WASHED ROCK.
8. FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED. THE NEWLY DISTURBED AREAS RESULTING FROM SILT FENCE REMOVAL SHALL BE IMMEDIATELY SEEDED AND MULCHED, OR OTHERWISE PERMANENTLY STABILIZED TO THE SATISFACTION OF THE CIVIL INSPECTOR.
9. SILT FENCES SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
10. MAINTENANCE: ANY DAMAGED OR CLOGGED FENCE SHALL BE REPAIRED/REPLACED IMMEDIATELY. SEDIMENT MUST BE REMOVED WHEN THE SEDIMENT DEPTH IS 6 INCHES OR GREATER. IF CONCENTRATED FLOWS ARE EVIDENT UPHILL OF THE FENCE, THEY MUST BE INTERCEPTED AND CONVEYED TO A SEDIMENT TRAP OR POND.

3 SILT FENCE
SCALE: 1/2" = 1'-0"



- NOTES:
1. INSERT SHALL BE INSTALLED PRIOR TO CLEARING AND GRADING ACTIVITY OR UPON PLACEMENT OF A NEW CATCH BASIN.
 2. SEDIMENT SHALL BE REMOVED FROM THE UNIT WHEN IT BECOMES HALF FULL.
 3. SEDIMENT REMOVAL SHALL BE ACCOMPLISHED BY REMOVING THE INSERT, EMPTYING, AND RE-INSERTING INTO THE CATCH BASIN.

4 CATCH BASIN INSERT
SCALE: NTS



DESCRIPTION	DATE	MARK
EMERGENCY PERMIT SUBMITTAL	10/05/18	
PERMIT SUBMITTAL	06/07/19	
DESIGN:	MBB	
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NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008
TEMPORARY EROSION CONTROL
PLAN & DETAILS

SHEET:

STRUCTURAL NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

PROCEDURE/CONSTRUCTION SEQUENCING:

- PRECONSTRUCTION MEETING
- CONTRACTOR SHALL CALL THE ENGINEERING INSPECTION LINE TO SET UP A PRECONSTRUCTION MEETING PRIOR TO ANY SITE WORK.
- DRIVE PILES
- CONTRACTOR SHALL DRIVE PILES PER THE STRUCTURAL NOTES AND DRAWINGS AND THE GEOTECHNICAL ENGINEERING REPORT.
- GROUTED ANCHOR TIEBACKS
- CONTRACTOR SHALL INSTALL AND TEST GROUTED ANCHOR TIEBACKS PER THE STRUCTURAL NOTES AND DRAWINGS AND THE GEOTECHNICAL ENGINEERING REPORT.
- SHOTCRETE
- CONTRACTOR SHALL INSTALL AND TEST SHOTCRETE PER THE STRUCTURAL NOTES & DRAWINGS.
- EXCAVATIONS SHALL NOT REMAIN UNLAGGED OVERNIGHT.

GENERAL

- STRUCTURAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS FOR BIDDING AND CONSTRUCTION. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS FOR COMPATIBILITY BEFORE PROCEEDING. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING.
- CONTRACTOR TO SEE ARCHITECTURAL DRAWINGS FOR SIZE AND LOCATION OF PIPE, VENT, DUCT AND OTHER OPENINGS AND DETAILS NOT SHOWN ON THESE DRAWINGS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION STABILITY AND TEMPORARY SHORING AS NECESSARY UNTIL PERMANENT SUPPORT AND STIFFENING ARE INSTALLED.
- CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE ARCHITECT AND STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.
- DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF A SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

SHOTCRETE NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

GENERAL NOTES

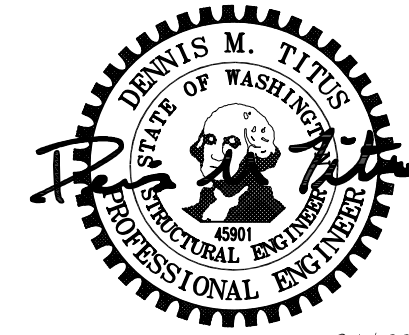
- ALL SHOTCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE IBC SECTION 1908, AMERICAN CONCRETE INSTITUTE (ACI) 506R-05 GUIDE TO SHOTCRETE, ACI 5-6.2-95 SPECIFICATIONS FOR SHOTCRETE, AND ACI 506.4R-94 GUIDE FOR THE EVALUATION OF SHOTCRETE.
- A PRE-CONSTRUCTION MEETING WITH THE CONTRACTOR, SPECIAL INSPECTOR, AND BUILDING OFFICIAL IS REQUIRED TO DISCUSS AND REVIEW THE SHOTCRETE PROCEDURES, WHICH SHALL INCLUDE THE LIFT HEIGHT, NOZZLER APPROVAL, NOZZLER'S ASSISTANT (BLOW PIPE OPERATOR) APPROVAL, EQUIPMENT, METHOD OF TAKING COMPRESSION TEST SAMPLES, DESIGN MIX, SLUMP, AND PRE-CONSTRUCTION TESTING.
- ANY SHOTCRETE COMPRISED OF COARSE AGGREGATE SHALL NOT USE COARSE AGGREGATE EXCEEDING 3/4 INCH.
- ANY REBOUND OR ACCUMULATED LOOSE AGGREGATE SHALL BE REMOVED FROM THE SURFACES TO BE COVERED PRIOR TO PLACING THE INITIAL OR ANY SUCCEEDING LAYERS OF SHOTCRETE. REBOUND SHALL NOT BE USED AS AGGREGATE.
- UNFINISHED WORK SHALL NOT BE ALLOWED TO STAND FOR MORE THAN 30 MINUTES UNLESS EDGES ARE SLOPED TO A THIN EDGE. BEFORE PLACING ADDITIONAL MATERIAL ADJACENT TO PREVIOUSLY APPLIED WORK, SLOPING AND SQUARE EDGES SHALL BE CLEANED AND WETTED.
- IN-PLACE SHOTCRETE THAT EXHIBITS SAGS, SLOUGHS, SEGREGATION, HONEYCOMBING, SAND POCKETS OR OTHER OBVIOUS DEFECTS SHALL BE REMOVED AND REPLACED. SHOTCRETE ABOVE SAGS AND SLOUGHS SHALL BE REMOVED AND REPLACED WHILE STILL PLASTIC.
- SHOTCRETE SHALL BE KEPT CONTINUOUSLY MOIST FOR 24 HOURS AFTER SHOTCRETING IS COMPLETE OR SHALL BE SEALED WITH AN APPROVED CURING COMPOUND. FINAL CURING SHALL CONTINUE FOR SEVEN DAYS AFTER SHOTCRETING, OR FOR THREE DAYS IF HIGH-EARLY-STRENGTH CEMENT IS USED, OR UNTIL THE SPECIFIED STRENGTH IS OBTAINED.
- WHERE IT WILL TAKE MORE THAN ONE 8 HOUR WORK DAY TO COMPLETE THE SHOTCRETE ON A PROJECT, MORE THAN ONE NOZZLER MAY BE REQUIRED TO PASS A MOCK-UP PANEL BEFORE THE SHOTCRETING MAY START. NO SHOTCRETE SHALL BE PLACED BY ANY PERSON OTHER THAN A NOZZLER PRE-QUALIFIED AND APPROVED FOR THE PROJECT. IF ONLY ONE NOZZLER IS APPROVED FOR THE PROJECT AND THAT PERSON IS UNABLE TO COMPLETE IT FOR ANY REASON, WORK SHALL STOP UNTIL ANOTHER NOZZLER IS APPROVED.
- REINFORCING**
- REINFORCING BARS USED IN SHOTCRETE CONSTRUCTION SHALL USE NO. 5 OR SMALLER BARS. NO. 6 BARS AND LARGER MAY BE USED IF DEMONSTRATED THROUGH PRE-CONSTRUCTION TESTS THAT ADEQUATE ENCASEMENT OF LARGER BARS CAN BE ACHIEVED.
- THE MINIMUM CLEARANCE BETWEEN PARALLEL REINFORCING SHALL BE 2 INCHES MINIMUM FOR NO. 5 OR SMALLER BARS. WHEN BARS LARGER THAN NO. 5 ARE PERMITTED, THE MINIMUM CLEARANCE BETWEEN PARALLEL BARS SHALL BE EQUAL TO SIX BAR DIAMETERS OF THE BAR BEING USED. WHEN TWO CURTAINS OF STEEL ARE PROVIDED, THE CURTAIN NEARER THE SHOTCRETE NOZZLE SHALL HAVE A MINIMUM SPACING EQUAL TO 12 BAR DIAMETERS AND THE REMAINING CURTAIN SHALL HAVE A MINIMUM SPACING OF SIX BAR DIAMETERS. LAP SPLICES OF REINFORCING BARS SHALL UTILIZE THE NONCONTACT LAP SPLICE METHOD WITH A MINIMUM CLEARANCE OF 2 INCHES BETWEEN BARS.

STRENGTH TESTS

- STRENGTH TESTS FOR SHOTCRETE SHALL BE MADE BY AN APPROVED AGENCY ON SPECIMENS THAT ARE REPRESENTATIVE OF THE WORK AND WHICH HAVE BEEN WATER SOAKED FOR AT LEAST 24 HOURS PRIOR TO TESTING. WHEN THE MAXIMUM-SIZE AGGREGATE IS LARGER THAN 3/8 INCH, SPECIMENS SHALL CONSIST OF NOT LESS THAN THREE 3-INCH-DIAMETER CORES OR 3-INCH CUBES. WHEN THE MAXIMUM-SIZE AGGREGATE IS 3/8 INCH OR SMALLER, SPECIMENS SHALL CONSIST OF NOT LESS THAN 2-INCH-DIAMETER CORES OR 2-INCH CUBES. SPECIMENS SHALL BE TAKEN FROM THE IN-PLACE WORK OR FROM TEST PANELS, AND SHALL BE TAKEN AT LEAST ONCE EACH SHIFT, BUT NOT LESS THAN ONE FOR EACH 50 CUBIC YARDS OF SHOTCRETE.
- WHEN THE MAXIMUM-SIZE AGGREGATE IS LARGER THAN 3/8 INCH, THE TEST PANELS SHALL HAVE MINIMUM DIMENSIONS OF 18 INCHES BY 18 INCHES. WHEN THE MAXIMUM SIZE AGGREGATE IS 3/8 INCH OR SMALLER, THE TEST PANELS SHALL HAVE MINIMUM DIMENSIONS OF 12 INCHES BY 12 INCHES. PANELS SHALL BE SHOT IN THE SAME POSITION AS THE WORK, DURING THE COURSE OF THE WORK AND BY THE NOZZLEMAN DOING THE WORK. THE CONDITIONS UNDER WHICH THE PANELS ARE CURED SHALL BE THE SAME AS THE WORK.

ENGINEERING

250 4TH AVE. S., SUITE 200
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FAX (425) 778-5536



04/22/19

MARK	DATE	DESCRIPTION														
			10/05/18	04/22/19												
		EMERGENCY PERMIT SUBMITTAL														
		PERMIT SUBMITTAL														
DESIGN:			MBB													
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JOB NO:			18149.10													
DATE:			04/22/19													

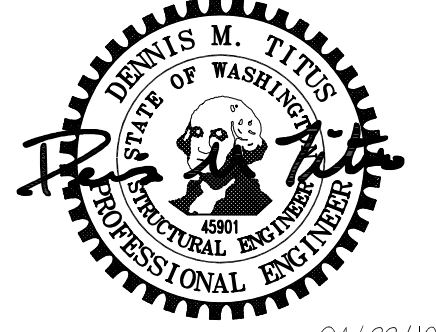
NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

SHORING NOTES

FILE NAME

SHEET:

SH1.2



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EMERGENCY PERMIT SUBMITTAL
PERMIT SUBMITTAL

DATE
10/05/18
04/22/19

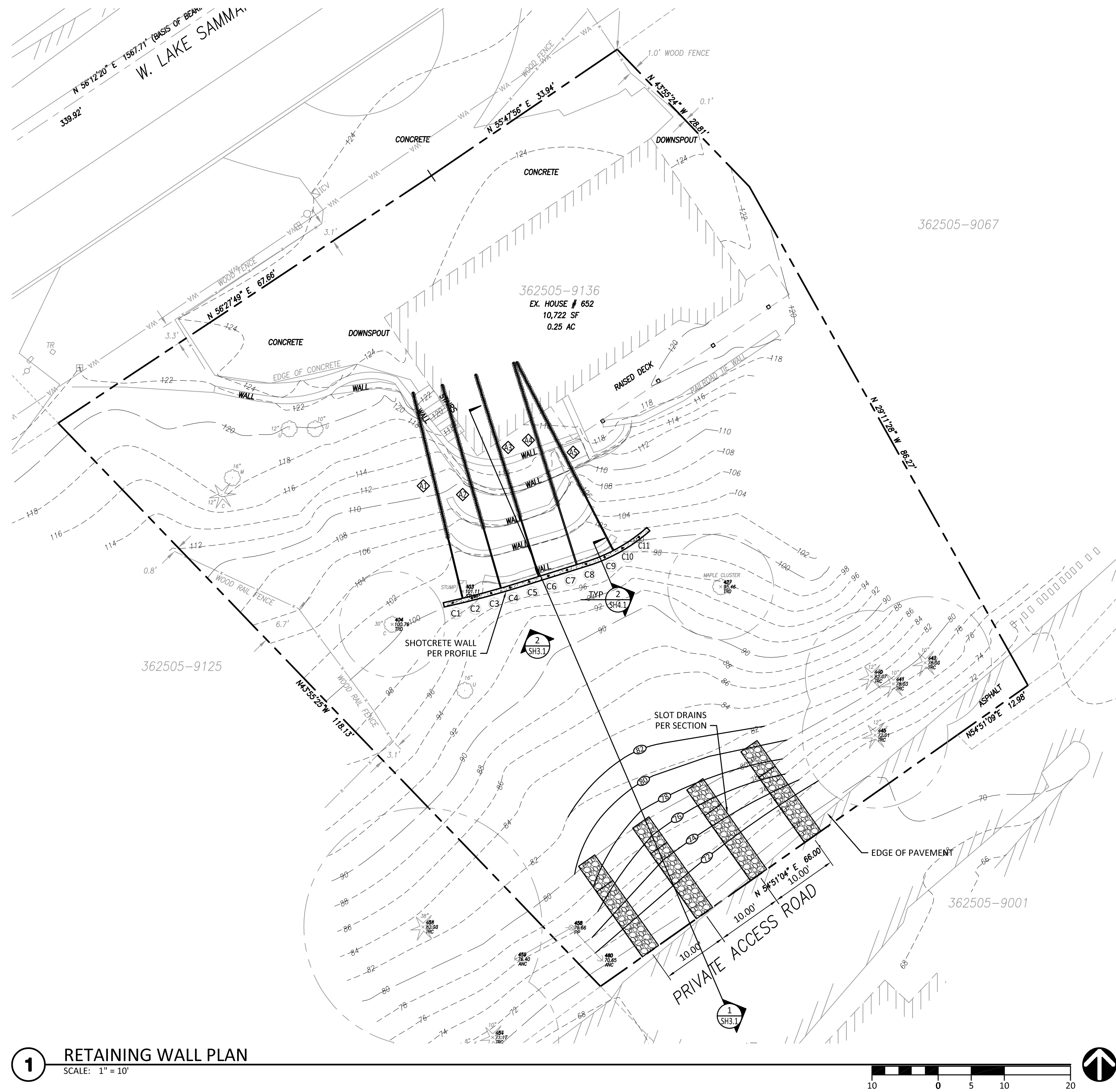
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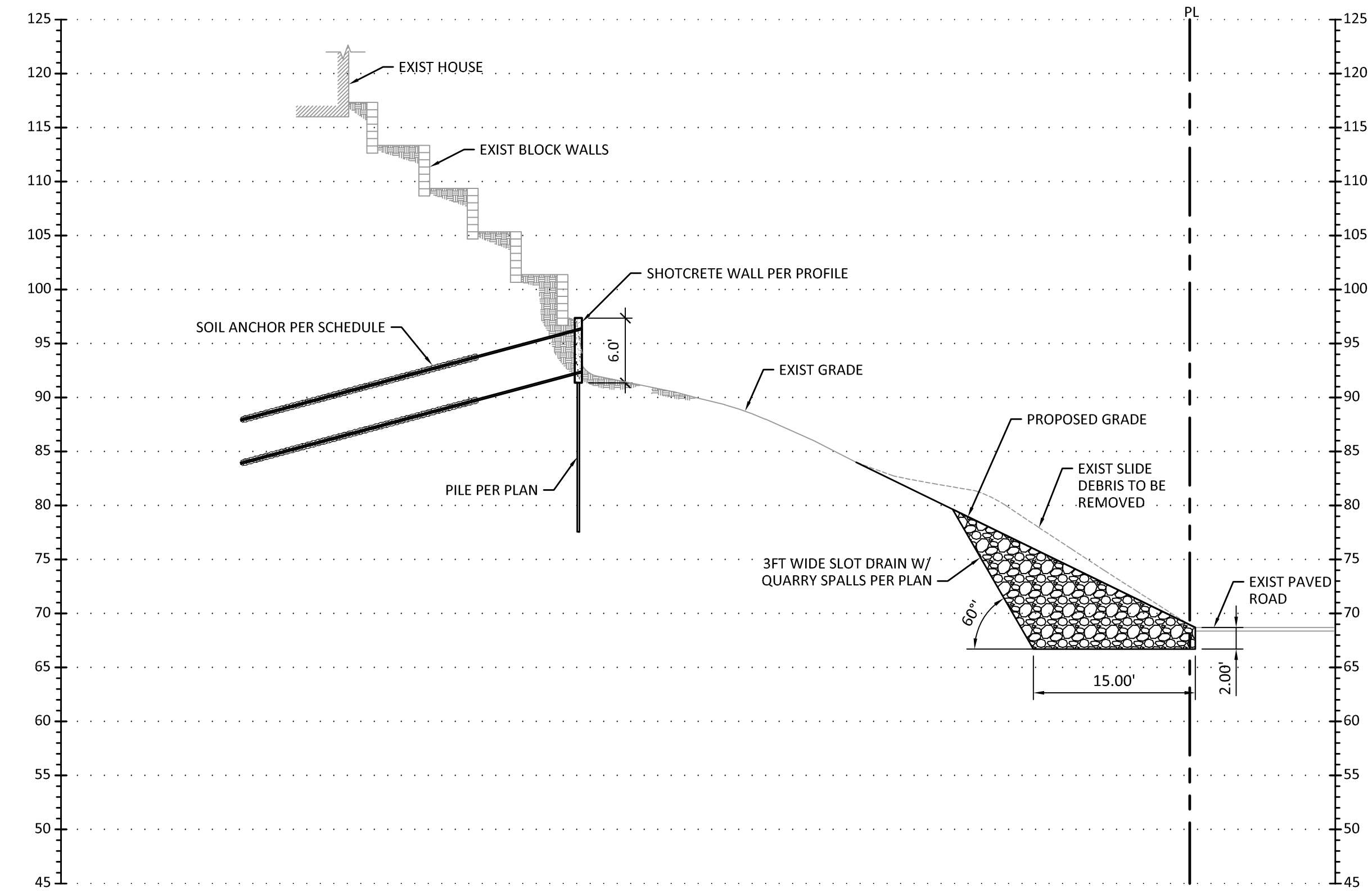
NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

RETAINING WALL PLAN

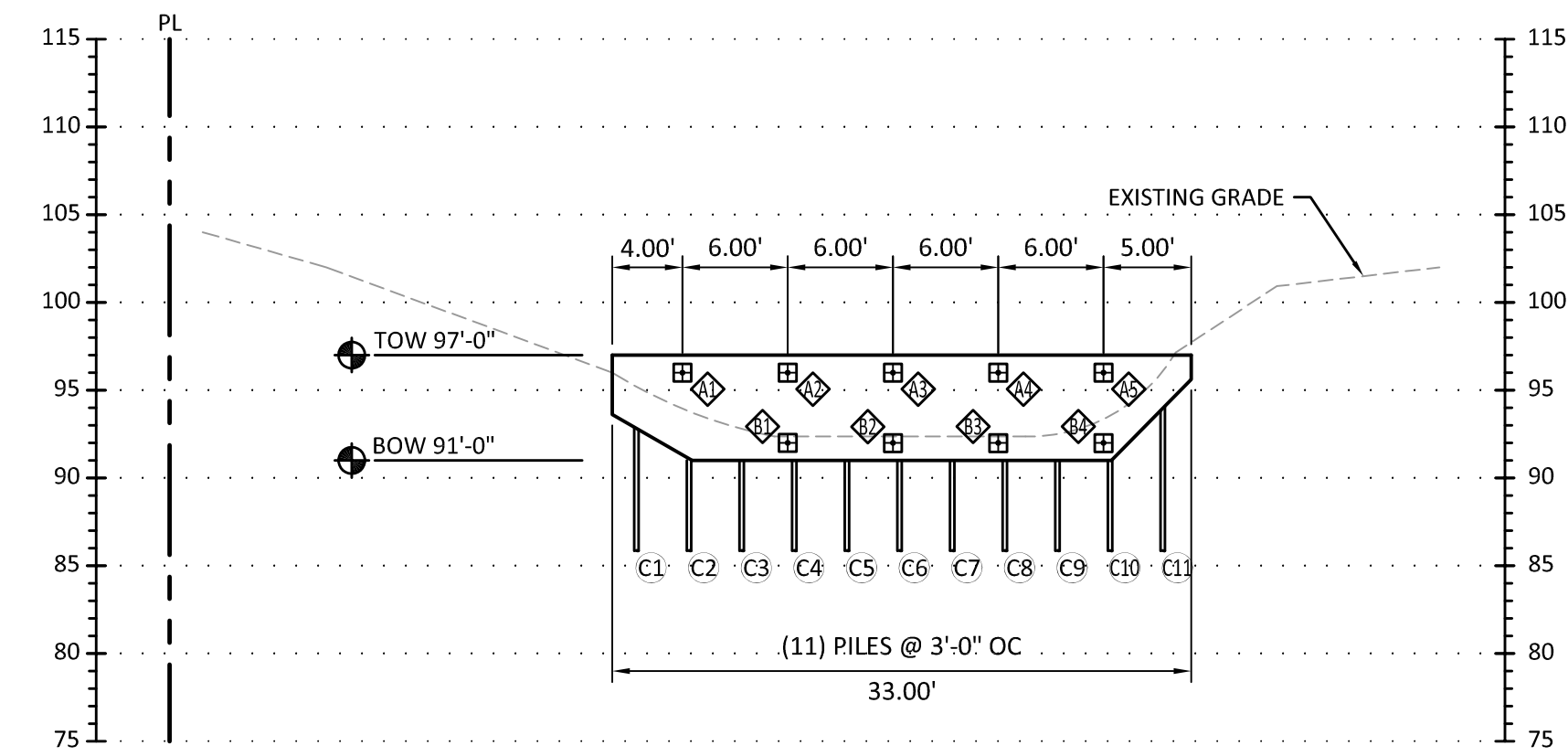
SHEET:

SH2.1





1 WALL SECTION
SCALE: 1" = 10'



2 WALL PROFILE
SCALE: 1" = 10'

TIEBACK SCHEDULE		
	PIPE PILES	C1-C11
	MAX RETAINED HEIGHT	6'-0"
UPPER ROW	ANCHOR	A1-A5
	TIEBACK DIA	3"Ø
	DESIGN LOAD (K)	5.0 K
	LOCK OFF LOAD (K)	2.0 K
	L-TOTAL	25'
	L-BONDED	15'
	L-UNBONDED	10'
	A(DEG)	20°
	L-HORIZ	26.6'
LOWER ROW	ANCHOR	B1-B4
	TIEBACK DIA	3"Ø
	DESIGN LOAD (K)	10.0 K
	LOCK OFF LOAD (K)	4.0 K
	L-TOTAL	20'
	L-BONDED	15'
	L-UNBONDED	5'
	A(DEG)	20°
	L-HORIZ	16'
NOTES: 1. CONTRACTOR TO FIELD VERIFY THAT THE MAX. RETAINED HEIGHT IS NOT EXCEEDED. 2. F = AXIAL TIEBACK FORCE IN KIPS. 3. ALTERNATE TIEBACK TYPES MAY BE SUBMITTED FOR REVIEW. 4. REFER TO DETAIL 2/SH4.1 FOR ALL INFORMATION NOT SPECIFIED.		



MARK	DATE	DESCRIPTION
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	06/07/19	PERMIT SUBMITTAL

DESIGN:	MBB
DRAWN:	JCP
CHECK:	DMT
JOB NO:	18149.10
DATE:	04/22/19

NGUYEN RESIDENCE SLOPE STABILIZATION 652 W LAKE SAMMAMISH PKWY NE BELLEVUE, WA 98008	WALL SECTION AND PROFILE
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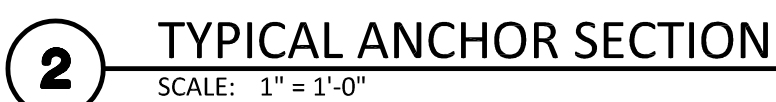
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JOB NO:	18149.10
DATE:	04/22/19

NGUYEN RESIDENCE SLOPE STABILIZATION
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

DETAILS

SHEET:

SH4.1



STRUCTURAL NOTES

(THESE NOTES ARE TYPICAL UNLESS NOTED OR DETAILED OTHERWISE ON DRAWINGS)

CODE

ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE INTERNATIONAL BUILDING CODE (IBC), 2015 EDITION. SPECIFICATIONS AND STANDARDS WHERE REFERENCED ON THE DRAWINGS ARE TO BE THE LATEST EDITION.

DESIGN LOADS

DEAD LOADS:
ROOF 12 PSF
FLOOR 12 PSF

LIVE LOADS:
ROOF (SNOW LOAD) 25 PSF
FLOOR (RESIDENTIAL) 40 PSF

(LIVE LOADS ARE REDUCED WHERE PERMISSIBLE PER IBC SECTION 1607.10).

STATEMENT OF SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE REQUIRED AS INDICATED IN THE FOLLOWING TABLE. THE CONTRACTOR SHALL SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE BUILDING OFFICIAL AND OWNER PRIOR TO COMMENCEMENT OF WORK IN ACCORDANCE WITH CHAPTER 1704.4 OF THE IBC.

FREQUENCY AND DISTRIBUTION OF REPORTS - INSPECTION REPORTS SHALL BE PROVIDED FOR EACH DAY ON SITE BY SPECIAL INSPECTOR. STRUCTURAL OBSERVATION REPORTS SHALL BE PROVIDED AFTER EACH OBSERVATION. REPORTS SHALL BE DISTRIBUTED TO THE CONTRACTOR, ARCHITECT, ENGINEER AND BUILDING OFFICIAL.

SPECIAL INSPECTION

Table with 4 columns: OPERATION, CONT, PERIODIC, REMARKS. Rows include SOILS, PIPE PILING INSTALLATION, PILING REFUSAL VERIFICATION, CONCRETE, and ADHESIVE ANCHORS.

NOTE: ALL ITEMS MARKED WITH AN "X" SHALL BE INSPECTED IN ACCORDANCE WITH IBC CHAPTER 17. SPECIAL INSPECTION SHALL BE PERFORMED BY A QUALIFIED TESTING AGENCY DESIGNATED BY THE OWNER.

SHOP DRAWINGS

NOT REQUIRED

FOUNDATIONS: PIN PILES

SOILS REPORT: REPORT NO: 1001717
PREPARED BY: NELSON GEOTECHNICAL ASSOCIATES, INC.
DATED: 02/15/18

ALLOWABLE PILE CAPACITY: 6,000 LBS (TO BE FIELD VERIFIED BY NELSON GEOTECHNICAL)

IMPORTED STRUCTURAL FILL AND BACKFILL MATERIAL SHOULD CONSIST OF CLEAN, WELL GRADED GRANULAR MATERIAL FREE OF DEBRIS OR ORGANICS WITH A MAXIMUM PARTICLE DIAMETER OF THREE INCHES AND NO MORE THAN 10% FINES (PASSING THE #200 SIEVE).

FILL AND BACKFILL MATERIAL SHOULD BE PLACED IN LEVEL LIFTS NOT EXCEEDING TWELVE (12") INCHES IN LOOSE THICKNESS AND COMPACTED TO A MINIMUM OF 95% OF ITS MAXIMUM DRY DENSITY AS DETERMINED BY ASTM TEST METHOD D1557-00.

BACKFILL BEHIND ALL RETAINING WALLS WITH WELL-DRAINING, GRANULAR FILL AND PROVIDE FOR SUBSURFACE DRAINAGE. PROVIDE DAMPPROOFING AT EXTERIOR FACE OF ALL FOUNDATION WALLS EXPOSED TO EARTH PER ARCHITECTURAL SPECIFICATIONS.

2"Ø PIPE PILING INSTALLATION

2" XS PIPE SHALL CONFORM TO ASTM A53 GRADE A OR B, Fy = 30 KSI (MIN)

PILES SHALL BE DRIVEN THROUGH LOOSE MATERIAL & BEAR IN COMPETENT DENSE SOIL AS DETERMINED BY THE GEOTECHNICAL SPECIAL INSPECTOR. PILES SHALL HAVE A MINIMUM OVERALL EMBEDMENT OF 15 FEET OR AS DETERMINED ADEQUATE BY THE GEOTECHNICAL SPECIAL INSPECTOR. PILES SHALL NOT EXCEED A MAXIMUM EMBEDMENT DEPTH OF 30 FEET.

PIPE PILING SHALL BE DRIVEN INTO THE SUBGRADE TO A POINT OF REFUSAL BY MEANS OF A PNEUMATIC HAMMER OR OTHER SIMILAR HYDRAULIC HAMMER SYSTEM. THE PNEUMATIC HAMMER SHOULD WEIGH AT LEAST 140 POUNDS. REFUSAL SHALL BE DEFINED AS 1" OR LESS OF PENETRATION DURING 1 MINUTE OF SUSTAINED DRIVING. PIPE SECTIONS SHALL BE CONNECTED WITH INTERNAL SLIP COUPLINGS.

THE CONTRACTOR SHALL LOCATE AND PROTECT ALL UTILITIES DURING CONSTRUCTION AND SHALL CONTACT THE UNDERGROUND UTILITIES LOCATION SERVICE (1-800-424-5555) AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO INDEPENDENTLY VERIFY ALL UTILITIES WHICH MAY BE AFFECTED BY THE IMPLEMENTATION OF THESE DRAWINGS. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR ANY AND ALL DAMAGE TO UNDERGROUND UTILITIES RESULTING FROM THEIR OPERATION.

CONCRETE

ALL CONCRETE SHALL BE MIXED, PROPORTIONED, CONVEYED, AND PLACED IN ACCORDANCE WITH SECTION CHAPTER 5 OF ACI 318 AND THE AMERICAN CONCRETE INSTITUTE'S SPECIFICATIONS FOR STRUCTURAL CONCRETE FOR BUILDINGS (ACI 301).

ALL CONCRETE SHALL BE STONE-AGGREGATE CONCRETE HAVING A UNIT WEIGHT OF APPROXIMATELY 150 POUNDS PER CUBIC FOOT.

CONCRETE STRENGTHS AT 28 DAYS (F'c) AND MIX CRITERIA SHALL BE AS FOLLOWS:

Table with 5 columns: TYPE OF CONSTRUCTION, f'c, MAXIMUM WATER/CEMENT RATIO, MIN CEMENT CONTENT PER CUBIC YARD, MAXIMUM SHRINKAGE STRAIN. Rows include SLABS ON GRADE, FOOTINGS, and ALL OTHER CONC.

THE MINIMUM AMOUNT OF CEMENT LISTED ABOVE MAY BE CHANGED IF A CONCRETE PERFORMANCE MIX IS SUBMITTED TO THE ENGINEER AND THE BUILDING DEPARTMENT FOR APPROVAL TWO WEEKS PRIOR TO PLACING ANY CONCRETE. THE PERFORMANCE MIX SHALL INCLUDE THE AMOUNTS OF CEMENT, FINE AND COARSE AGGREGATE, WATER, AND ADMIXTURES AS WELL AS THE WATER-CEMENT RATIO, SLUMP, CONCRETE YIELD, AND SUBSTANTIATING STRENGTH DATA IN ACCORDANCE WITH CHAPTER 5 OF ACI 318.

ALL CONCRETE EXPOSED TO WEATHER OR TO FREEZING TEMPERATURES SHALL BE AIR-ENTRAINED IN ACCORDANCE WITH ACI 318 TABLE 4.2.1 FOR MODERATE EXPOSURE CONDITION.

REINFORCING STEEL

REINFORCING STEEL SHALL BE DEFORMED BILLET STEEL CONFORMING TO ASTM A615, AND SHALL BE GRADE 60 (Fy = 60,000 PSI), UNLESS NOTED OTHERWISE. GRADE 60 REINFORCING BARS INDICATED ON DRAWINGS TO BE WELDED SHALL CONFORM TO ASTM A706, REINFORCING COMPLYING WITH ASTM A615 MAY BE WELDED IF MATERIAL PROPERTY REPORTS INDICATING CONFORMANCE WITH WELDING PROCEDURES SPECIFIED IN AWS D1.4 ARE SUBMITTED.

WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185. PROVIDE WELDED WIRE FABRIC IN SHEETS NOT ROLLS. LAP WELDED WIRE FABRIC 12" AT SIDES AND ENDS.

REINFORCING STEEL SHALL BE DETAILED INCLUDING HOOKS AND BENDS IN ACCORDANCE WITH SP-66 AND ACI 318R, LATEST EDITIONS. UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE PER SCHEDULE.

MECHANICAL SPLICING OF REINFORCING BARS, WHERE INDICATED ON THE DRAWINGS, SHALL BE BY AN ICBO APPROVED SYSTEM, SHALL DEVELOP 125% OF THE SPECIFIED YIELD STRENGTH OF THE BAR, AND SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

REINFORCING SHALL BE PLACED AND ADEQUATELY SUPPORTED PRIOR TO PLACING CONCRETE. WET-SETTING EMBEDDED ITEMS IS NOT ALLOWED WITHOUT PRIOR ENGINEER APPROVAL. BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER. REFER TO CHAPTER 7 OF ACI 318 FOR OTHER REINFORCING STEEL REQUIREMENTS.

MINIMUM LAPS AND EMBEDMENT

UNLESS OTHERWISE NOTED, REINFORCING SPLICE LENGTHS AND DEVELOPMENT LENGTHS SHALL BE AS TABULATED BELOW:

Table for f'c = 2500 PSI showing DEVELOPMENT LENGTH and LAP SPLICE for various BAR SIZE, TENSION, and COMPRESSION conditions.

Table for f'c = 3000 PSI showing DEVELOPMENT LENGTH and LAP SPLICE for various BAR SIZE, TENSION, and COMPRESSION conditions.

NOTE: 1. ALL LENGTHS ARE IN INCHES. 2. ALL LAP SPLICES ARE CLASS B. 3. "TOP BARS" ARE HORIZONTAL REINFORCEMENT PLACED SUCH THAT MORE THAN 12 INCHES OF CONCRETE IS CAST IN THE MEMBER BELOW THE BAR.

CONCRETE GENERAL NOTES

VERTICAL BARS SHALL START FROM TOP OF FOOTING. HORIZONTAL BARS SHALL START A DISTANCE OF 1/2 THE NORMAL BAR SPACING FROM TOP OF FOOTING AND TOP OF FRAMED SLABS. IN ADDITION, THERE SHALL BE A HORIZONTAL BAR AT A MAXIMUM OF 3" FROM TOP OF WALL AND BOTTOM OF FRAMED SLABS.

PROVIDE CORNER BARS TO MATCH THE HORIZONTAL REINFORCING WITH TENSION LAP SPLICE AT EACH SIDE PER TABLE, OR BEND ONE SIDE OVER TO PROVIDE TENSION LAP.

PROVIDE CONTROL OR CONSTRUCTION JOINTS IN SLABS ON GRADE TO BREAK UP SLAB INTO RECTANGULAR AREAS OF NOT MORE THAN 400 SQUARE FEET EACH. AREAS TO BE AS SQUARE AS PRACTICAL AND HAVE NO ACUTE ANGLES. JOINT LOCATIONS TO BE APPROVED BY THE ARCHITECT.

ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED AND PROPERLY PREPARED IMMEDIATELY PRIOR TO POURING OF CONCRETE. DOWEL STEEL SHALL BE THE SAME SIZE AND SPACING AS MAIN REINFORCING DETAILED BEYOND JOINT.

SEE ARCHITECTURAL DRAWINGS AND MECHANICAL DRAWINGS FOR EXACT LOCATIONS AND DIMENSIONS OF OPENINGS IN CONCRETE WALLS, FLOORS AND ROOF. UNLESS INDICATED OTHERWISE, REINFORCE AROUND OPENINGS GREATER THAN 12" IN EITHER DIRECTION WITH (2) #5 EACH SIDE AND (1) #5 x 4'-0" DIAGONAL AT EACH CORNER. EXTEND BARS 2'-0" BEYOND EDGE OF OPENING. IF 2'-0" IS UNAVAILABLE, EXTEND AS FAR AS POSSIBLE AND HOOK. HOOK ALL REINFORCING INTERRUPTED BY OPENINGS.

BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL NOT BE FIELD BENT UNLESS SO DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

SEE ARCHITECTURAL DRAWINGS FOR ALL GROOVES, NOTCHES, CHAMFERS, FEATURE STRIPS, COLOR, TEXTURE AND OTHER FINISH DETAILS AT ALL EXPOSED CONCRETE SURFACES. PROVIDE 3/4" CHAMFER AT ALL CORNERS EXCEPT AS NOTED.

STRUCTURAL STEEL

STRUCTURAL STEEL DESIGN, FABRICATION AND ERECTION SHALL BE IN ACCORDANCE WITH THE AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS", LATEST EDITION.

PLATES, ANGLES, AND RODS SHALL CONFORM TO ASTM A36, Fy = 36 KSI.

STRUCTURAL TUBING SHALL CONFORM TO ASTM A500 GRADE B, Fy = 46 KSI.

STEEL PIPE SHALL CONFORM TO ASTM A53 GRADE B, Fy = 35 KSI.

BOLTS CONNECTING STEEL MEMBERS SHALL CONFORM TO ASTM A325-N. BOLTS SHALL BE 3/4"Ø MINIMUM, UNO ANCHOR BOLTS SHALL CONFORM TO ASTM A307.

CONTRACTOR SHALL PROVIDE CONNECTION ADJUSTMENT TOLERANCES TO SATISFY THE REQUIREMENTS OF AISC MANUAL OF STEEL CONSTRUCTION.

UNLESS SPECIFIED AS STAINLESS STEEL, ALL STEEL MEMBERS, SHAPES, BOLTS, AND ACCESSORIES EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED.

EXISTING BUILDING

CONTRACTOR SHALL VERIFY ALL DIMENSIONS, MEMBER SIZES AND CONDITIONS OF THE EXISTING BUILDING DEPICTED IN THE DRAWINGS, AND NOTIFY THE STRUCTURAL ENGINEER OF ANY DISCREPANCIES FOR POSSIBLE REDESIGN.

CONTRACTOR RESPONSIBLE FOR COMPLETELY SEALING ALL AREAS WHERE EXISTING ROOF MATERIAL IS PENETRATED OR REMOVED. PROVIDE WATER PROOFING AS REQUIRED BY THE ARCH.

GENERAL

CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS FOR COMPATIBILITY BEFORE PROCEEDING. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT BEFORE PROCEEDING.

CONTRACTOR SHALL BE RESPONSIBLE FOR ERECTION STABILITY AND TEMPORARY SHORING AS NECESSARY UNTIL PERMANENT SUPPORT AND STIFFENING ARE INSTALLED.

CONTRACTOR-INITIATED CHANGES SHALL BE SUBMITTED IN WRITING TO THE STRUCTURAL ENGINEER FOR APPROVAL PRIOR TO FABRICATION OR CONSTRUCTION. CHANGES SHOWN ON SHOP DRAWINGS ONLY WILL NOT SATISFY THIS REQUIREMENT.

DRAWINGS INDICATE GENERAL AND TYPICAL DETAILS OF CONSTRUCTION. WHERE CONDITIONS ARE NOT SPECIFICALLY INDICATED BUT ARE OF A SIMILAR CHARACTER TO DETAILS SHOWN, SIMILAR DETAILS OF CONSTRUCTION SHALL BE USED, SUBJECT TO REVIEW AND APPROVAL BY THE ARCHITECT AND THE STRUCTURAL ENGINEER.

LEGEND table with 4 columns: DEFINITION, SYMBOL, DEFINITION, SYMBOL. Rows include DIRECTION OF FRAMING, EXTENT OF FRAMING, COLUMNS, COLUMN BEARING ON BEAM, BEAM CONTINUOUS OVER SUPPORT, CONCRETE WALL, BEARING STUD WALL, NON-BEARING STUD WALL, BEARING STUD SHEAR WALL, NON-BEARING STUD SHEAR WALL, CMU WALL, NATIVE SOIL, GRANULAR FILL, STRUCTURAL STEEL, RATED SHEATHING, SHEAR WALL (SEE SCHEDULE), COLUMN MARK (SEE SCHEDULE), FOOTING MARK (SEE SCHEDULE), HOLDOWN MARK (SEE SCHEDULE), HANGER MARK (SEE SCHEDULE), FLAG NOTE (SEE PLAN NOTES), STEEL MOMENT FRAME CONN.

ABBREVIATIONS table with 4 columns: (A), ABOVE, GLB, GLUE-LAMINATED BEAM. Rows include AB, ALT, ARCH, (B), BD, BLKG, BM, BOT, BRNG, BTWN, CJP, CLR, CMU, COL, CONC, CONN, CONT, COORD, DBL, DET, DIA, DIM, DIR, EA, ELEV, ES, EX, EXP, FLR, FDN, FTG, FS, GC, ANCHOR BOLT, ALTERNATE, ARCHITECT, BELOW, BAR DIAMETER, BLOCKING, BEAM, BOTTOM, BEARING, BETWEEN, COMPLETE JOINT PENETRATION, CLEAR, CONCRETE MASONRY UNIT, COLUMN, CONCRETE, CONNECTION, CONTINUOUS, COORDINATE, DOUBLE, DETAIL, DIAMETER, DIMENSION, DIRECTION, EACH, ELEVATION, EACH SIDE, EXISTING, EXPANSION, FLOOR, FOUNDATION, FOOTING, FAR SIDE, GENERAL CONTRACTOR, GLB, HORIZ, KP, KSI, L, MECH, MF, MTL, NS, OC, OPP, PL, PLCS, PSI, PSF, P/T, PT, REINF, REQ'D, SCHED, SIM, SOG, STD, STIFF, STL, SYMM, SW, TOC, TOS, TOW, TYP, UNO, VERT, WF, GLUE-LAMINATED BEAM, HORIZONTAL, KING POST, KIPS PER SQUARE INCH, ANGLE, MECHANICAL, MOMENT FRAME, METAL, NEAR SIDE, ON CENTER, OPPOSITE, PLATE, PLACES, POUNDS PER SQUARE INCH, POUNDS PER SQUARE FOOT, POST TENSIONED, PRESSURE TREATED, REINFORCING, REQUIRED, SCHEDULE, SIMILAR, SLAB ON GRADE, STANDARD, STIFFENER, STEEL, SYMMETRICAL, SHEARWALL, TOP OF CONCRETE, TOP OF STEEL, TOP OF WALL, TYPICAL, UNLESS NOTED OTHERWISE, VERTICAL, WIDE FLANGE.

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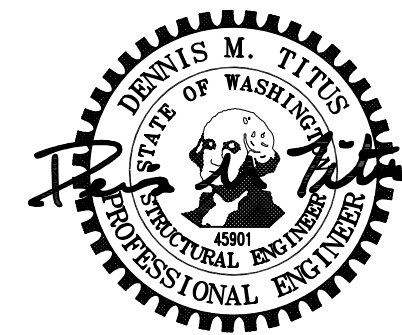


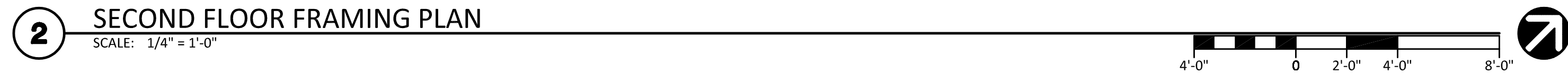
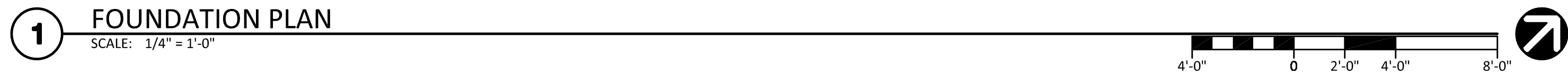
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Table with 2 columns: DESIGN, DRAWN, CHECK, JOB NO, DATE. Values include RMK, ATD, DMT, 18149.10, 10/05/18.

NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

STRUCTURAL NOTES

SHEET:

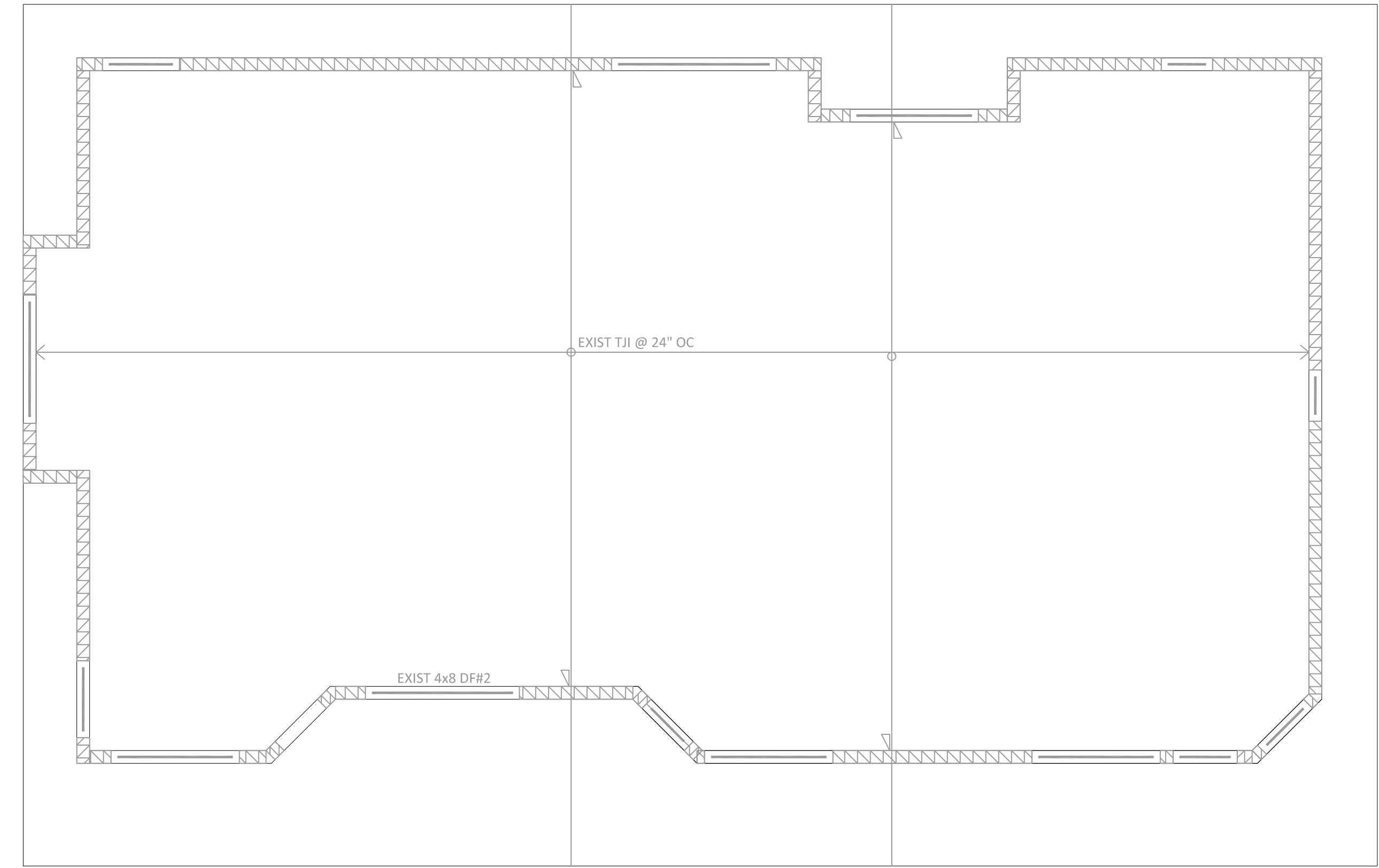


NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

FOUNDATION & SECOND FLOOR FRAMING

ILE NAME:

S2.1



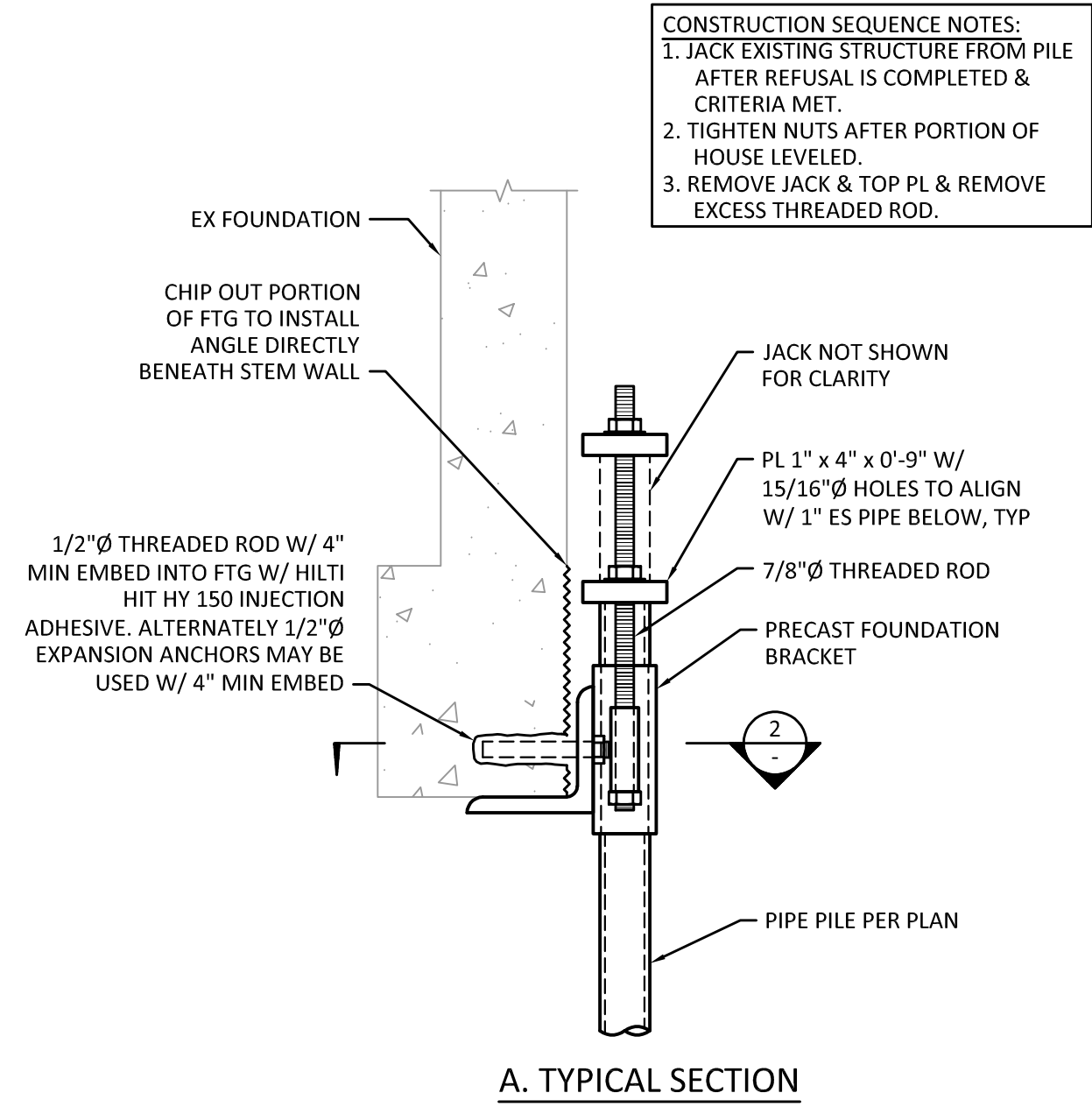
NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

THIRD FLOOR AND
ROOF FRAMING PLAN

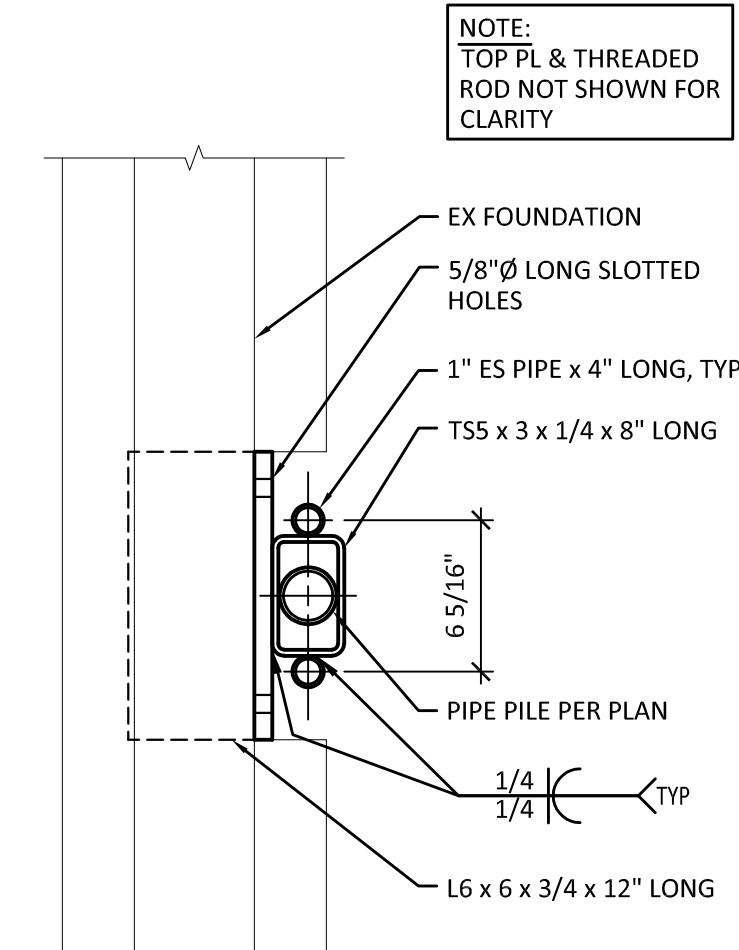
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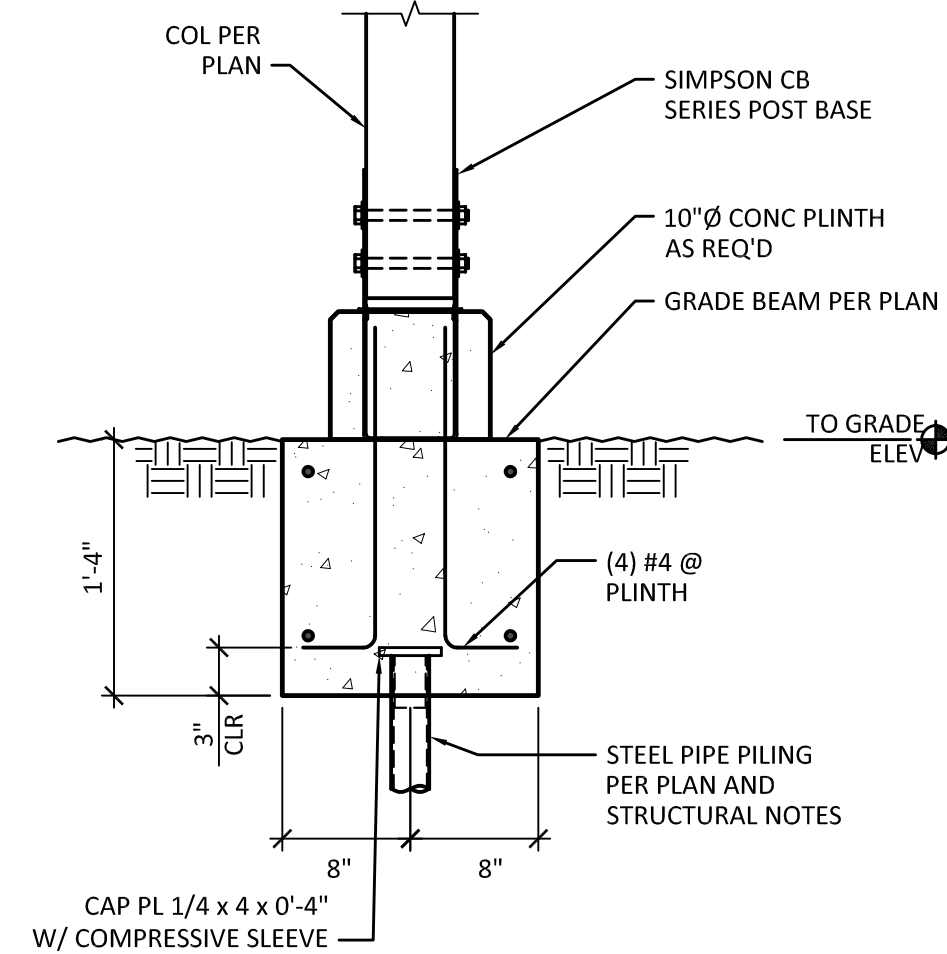
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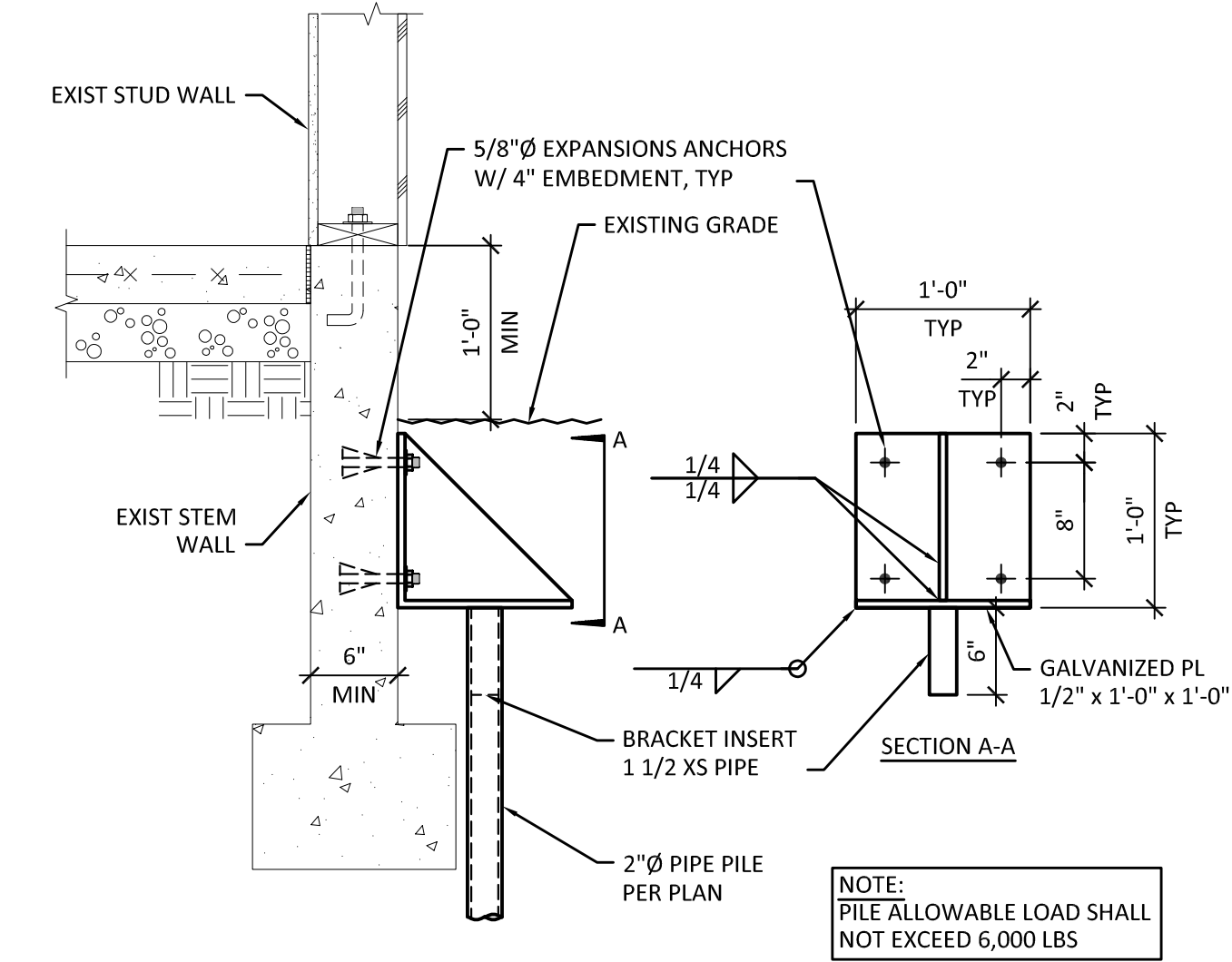
1 TYPICAL DETAIL
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2 TYPICAL DETAIL
 SCALE: 1 1/2" = 1'-0"



3 SECTION
 SCALE: 1" = 1'-0"



4 FACE MOUNT BRACKET DETAIL
 SCALE: 1" = 1'-0"

MARK	DATE	DESCRIPTION
	10/05/18	EMERGENCY PERMIT SUBMITTAL
	04/22/19	PERMIT SUBMITTAL

DESIGN:	RMK
DRAWN:	ATO
CHECK:	DMT
JOB NO:	18149.10
DATE:	10/05/18

NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
 652 W LAKE SAMMAMISH PKWY NE
 BELLEVUE, WA 98008
FOUNDATION DETAILS
 FILE NAME:

SHEET:



MARK	DATE	DESCRIPTION
	10/05/18	EMERGENCY PERMIT SUBMITTAL
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NGUYEN RESIDENCE EMERGENCY FOUNDATION REPAIR
652 W LAKE SAMMAMISH PKWY NE
BELLEVUE, WA 98008

STAIR DETAILS

LE NAME: _____

SHEET:

S4.1

